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INSTRUMENT APPROACH PROCEDURE CHARTS

A IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non precision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME, ASR or WAAS LNAV); for precision approaches 600-2 (ILS or PAR). Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility or absense of weather reporting service. Civil pilots see FAR 91. IFR Alternate Airport Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Airport Minimums Notes for alternate airfield suitability.

NAME ALTERNATE MINIMUMS

AUBURN-LEWISTON, ME

AUBURN-LEWISTON MUNI ..... **ILS or LOC Rwy 4[1]**
RNAV (GPS) Rwy 4[2]
RNAV (GPS) Rwy 22[3]

[1]ILS,Category C,700-2, Category D, 800-2½; LOC, NA.
[2]Categories A,B,C, 800-2¼, Category D, 800-2½.
[3]Category D, 800-2½.

AUGUSTA, ME

AUGUSTA STATE ..... **ILS or LOC Rwy 17[1]**
RNAV (GPS)-B[2]
RNAV (GPS) Rwy 8[2]
RNAV (GPS) Rwy 35[2]
VOR/DME Rwy 8[2]

[1]ILS, Categories B,C,D, 700-2.
[2]NA when local weather not available.

BANGOR, ME

BANGOR INTL ..... **ILS or LOC Rwy 33**
ILS,LOC, Categories A,B, 1000-2; Categories C,D,E, 1000-3.

BARRE-MONTPELIER, VT

EDWARD F. KNAPP STATE ..... **ILS or LOC Rwy 17[1]**
RNAV (GPS) Rwy 17[23]
RNAV (GPS) Rwy 35[36]
VOR/DME Rwy 35[4]
VOR Rwy 35[5]

[1]ILS, LOC, Categories A,B, 1900-2; Categories C, D, 1900-3.
[2]Category C, 800-2¼; Category D, 1400-3.
[3]NA when local weather not available.
[4]Categories A,B, 900-2; Category C, 900-2¼; Category D, 1400-3.
[5]Categories A,B, 1600-2; Categories C,D, 1600-3.
[6]Categories A,B, 900-2; Category C, 900-2½; Category D, 1400-3.

NAME ALTERNATE MINIMUMS

BAR HARBOR, ME

HANCOCK COUNTY-BAR HARBOR ..... **LOC/DME BC Rwy 4**
ILS or LOC Rwy 22
RNAV (GPS) Rwy 4
RNAV (GPS) Rwy 22
NA when local weather not available.

BEDFORD, MA

LAURENCE G. HANSCOM FIELD ..... **ILS or LOC Rwy 11[123]**
ILS or LOC Rwy 29[134]
RNAV (GPS) Rwy 11[3]
RNAV (GPS) Rwy 23[3]
RNAV (GPS) Rwy 29[3]
VOR Rwy 23[1]

[1]NA when contol tower closed.
[2]ILS, Category D, 700-2.
[3]NA when local weather not available.
[4]ILS, Categories A,B, 800-2; Category C, 800-2¼; Category D, 800-2½. LOC, Category C, 800-2¼; Category D, 800-2½.

BERLIN, NH

BERLIN RGNL ..... **VOR-B[1]**
VOR/DME Rwy 18[2]

[1]Categories A,B, 1100-2;Category C, 1100-3; Category D, 1200-3.
[2]Category B, 1200-2;Category C, 1200-3; Category D, 1300-3.

BEVERLY, MA

BEVERLY MUNI ..... **LOC Rwy 16**
NA when control tower closed.

BLOCK ISLAND, RI

BLOCK ISLAND STATE .... **RNAV (GPS) Rwy 28**
NA when local weather not available.

NAME ALTERNATE MINIMUMS

BOSTON, MA

GENERAL EDWARD LAWRENCE LOGAN INTL ..... **ILS or LOC Rwy 4R[1]**
ILS Rwy 15R[1]
ILS Rwy 22L[1]
ILS Rwy 27[1]
ILS or LOC Rwy 33L[1]
RNAV (GPS) Rwy 32[2]
VOR/DME Rwy 15R[3]

[1]ILS, 700-2.
[2]Categories A,B,1000-2; Category C, 1000-2¾; Category D, 1000-3.
[3]Category C, 800-2¼;Category D, 800-2½.

BRIDGEPORT, CT

IGOR I. SIKORSKY MEMORIAL .... **ILS Rwy 6[1,2]**
VOR Rwy 6[3]
VOR Rwy 24[3]
VOR Rwy 29[3]

[1]NA when control tower closed.
[2]ILS, Categories B,C, 700-2; Category D, 900-2½. LOC, Category D, 900-2½.
[3]Category D, 900-2½.

BURLINGTON, VT

BURLINGTON INTL ..... **ILS or LOC/DME Rwy 15[1,2,3]**
ILS or LOC/DME Rwy 33[1,2,4]
VOR Rwy 1[2]

[1]ILS, Category D, 700-2.
[2]NA when control tower closed.
[3]NA when local weather not available.
[4]LOC, Category E, 1000-3.

CHESTER, CT

CHESTER ..... **RNAV (GPS) Rwy 17**
RNAV (GPS) Rwy 35
VOR-A

NA when local weather not available.

CONCORD, NH

CONCORD MUNI ..... **RNAV (GPS) Rwy 12[1]**
RNAV (GPS) Rwy 17[2]
RNAV (GPS) Rwy 35[2]
VOR-A[1]

[1]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[2]Category D, 900-2¾.

DANBURY, CT

DANBURY MUNI ..... **LOC Rwy 8[1,2,3]**
VOR or GPS-A[4]

[1]NA when control tower closed.
[2]Category C, 800-2¼; Category D, 800-2½.
[3]NA when local weather not available.
[4]Categories A,B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.

NAME ALTERNATE MINIMUMS

FITCHBURG, MA

FITCHBURG MUNI ..... **NDB Rwy 20[1]**
RNAV (GPS) Rwy 14[1]
RNAV (GPS) Rwy 20[2]
RNAV (GPS) Rwy32[2]
NDB-A[3]

[1]Categories A,B, 1000-2; Category C, 1000-3.
[2]Category B, 1000-2; Category C, 1000-3.
[3]Category A, 900-2; Category B, 1000-2; Category C, 1000-3.

FRYEBURG, ME

EASTERN SLOPES RGNL ..... **NDB-B[1]**
RNAV (GPS) Rwy 32[2]

NA when local weather not available.
[1]Categories A, B, 1400-2; Category C, 1400-3.
[2]Categories A, B, 1100-2; Category C, 1100-3.

GROTON(NEW LONDON), CT

GROTON-NEW LONDON .... **ILS or LOC Rwy 5**

ILS,Categories B,C,D, 700-2.

HARTFORD, CT

HARTFORD-BRAINARD ..... **LDA Rwy 2**
VOR or GPS-A

NA when control tower closed.
Category C,1000-2¾, Category D, 1000-3.

HIGHGATE, VT

FRANKLIN COUNTY STATE ..... **RNAV (GPS) Rwy 1**

NA when local weather not available.

HYANNIS, MA

BARNSTABLE MUNI-BOARDMAN/ POLANDO FIELD ..... **ILS or LOC Rwy 15[1]**
ILS or LOC Rwy 24[1]
RNAV (GPS) Rwy 6
RNAV (GPS) Rwy 15
RNAV (GPS) Rwy 24
VOR Rwy 6[2]

NA when local weather not available.
[1]NA when control tower closed.
[2]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.

JAFFREY, NH

JAFFREY AIRPORT-SILVER RANCH ..... **VOR or GPS-A**

Non-DME minima, Categories A,B, 900-2.

NAME ALTERNATE MINIMUMS

KEENE, NH

DILLANT-HOPKINS ..... **RNAV (GPS) Rwy 2[1,2]**
VOR Rwy 2[3]

[1]Category A, 900-2; Category B, 1000-2; Category C, 1000-3; Category D, 1200-3.
[2]NA when local weather not available.
[3]Categories A,B, 1200-2; Category C,D, 1200-3.

LACONIA, NH

LACONIA MUNI ..... **ILS or LOC Rwy 8[1]**
NDB Rwy 8[2]
RNAV (GPS) Rwy 8[3]
RNAV (GPS) Rwy 26[3]

NA when local weather not available.
[1]ILS, LOC, Category A, 900-2; Category B, 1100-2; Category C, 1100-3; Category D, 1700-3.
[2]Category A, 1000-2; Category B, 1100-2; Category C, 1100-3; Category D, 1700-3.
[3]Category A, 900-2; Category B, 1000-2; Category C, 1100-3; Category D, 1700-3.

LAWRENCE, MA

LAWRENCE MUNI ..... **ILS Rwy 5[1]**
NDB or GPS Rwy 5[2]

[1]NA when control tower closed.
[2]Category C, 800-2¼; Category D, 800-2½.

LEBANON, NH

LEBANON MUNI ..... **ILS or LOC Rwy 18[1,2]**
RNAV (GPS) Rwy 7[3]
RNAV (GPS) Rwy 18[3]
RNAV (GPS) Rwy 25[3]
RNAV (GPS) Rwy 36[4]
VOR/DME Rwy 7[5]
VOR Rwy 25[6]

[1]NA when control tower closed.
[2]ILS,LOC, Category A,1000-2; Category B, 1200-2; Categories C, D, 1300-3.
[3]Category A, 1100-2; Category B, 1200-2; Category C, D, 1200-3.
[4]Categories A, B, 1200-2; Categories C, D, 1200-3.
[5]Categories A, B, 1000-2; Categories C, D, 1100-3.
[6]Categories A, B, 1100-2; Categories C, D, 1100-3.

MANCHESTER, NH

MANCHESTER ..... **ILS or LOC/DME Rwy 17[1,2]**
ILS or LOC Rwy 6[2]
ILS or LOC Rwy 35[2]
RNAV (GPS) Rwy 6[1]
RNAV (GPS) Rwy 35[1]
RNAV (GPS) Y Rwy 17[1]
VOR/DME or GPS Rwy 17[3]

[1]NA when local weather not available.

NAME ALTERNATE MINIMUMS

MARSHFIELD, MA

MARSHFEILD MUNI-GEORGE HARLOW FIELD ..... **NDB Rwy 24**
RNAV (GPS) Rwy 6
RNAV (GPS) Rwy 24

NA when local weather not available.

MILLINOCKET, ME

MILLINOCKET MUNI ..... **RNAV (GPS) Rwy 29**
VOR Rwy 29

NA when local weather not available.
Category D, 800-2¼.

NANTUCKET, MA

NANTUCKET MEMORIAL ..... **ILS or LOC Rwy 6[1,2]**
ILS or LOC Rwy 24[1,2]
NDB Rwy 24[1]
RNAV (GPS) Rwy 6[2]
RNAV (GPS) Rwy 24[2]
RNAV (GPS) Rwy 33[2]
VOR Rwy 24[2]

[1]NA when control tower closed.
[2]NA when local weather not available.

NASHUA, NH

BOIRE FIELD ..... **RNAV (GPS) Rwy 32[1]**
VOR or GPS-A[2,3]
VOR Rwy 32[2,4]

[1]NA when local weather not available.
[2]NA when control tower closed.
[3]Category D, 800-2¼.
[4]Category C, 800-2¼,Category D, 800-2½.

NEW BEDFORD, MA

NEW BEDFORD RGNL ..... **ILS or LOC Rwy 5[1]**
LOC BC Rwy 23
NDB Rwy 5

NA when control tower closed.
[1]ILS, 700-2.

NEW HAVEN, CT

TWEED-NEW HAVEN ..... **ILS or LOC Rwy 2[1]**
RNAV (GPS) Rwy 2[2]
VOR-A[2]
VOR Rwy 2[2]

NA when control tower closed.
NA when local weather not available.
[1]ILS, Categories A,B,C, 800-2; Category D, 800-2¼. LOC, Category D, 800-2¼.
[2]Category D, 800-2¼

NEWPORT, RI

NEWPORT STATE ..... **RNAV (GPS) Rwy 16**
VOR/DME Rwy 16

NA when local weather not available.

NAME ALTERNATE MINIMUMS

NORTH KINGSTOWN, RI

QUONSET STATE ..... **ILS or LOC Rwy 16[1,2]**
RNAV (GPS) Rwy 16[3]
RNAV (GPS) Rwy 34[3]
VOR-A[1]
VOR Rwy 34[1]

[1]NA when control tower closed.
[2]ILS, Categories A,B,C, 800-2; Category D, 800-2¼. LOC, Category D, 800-2¼.
[3]NA when local weather not available.

NORWOOD, MA

NORWOOD MEMORIAL ..... **LOC Rwy 35**
NA when control tower closed.

ORANGE, MA

ORANGE MUNI ..... **VOR-A**
Categories A,B, 1400-2; Categories C,D, 1400-3.

OXFORD, CT

WATERBURY-OXFORD ... **RNAV (GPS) Rwy 18**
NA when local weather not available.

PAWTUCKET, RI

NORTH
CENTRAL STATE ..... **RNAV (GPS) Rwy 5**
RNAV (GPS) Rwy 23
VOR-A
VOR-B
NA when local weather not available.

PLYMOUTH, MA

PLYMOUTH MUNI ..... **ILS or LOC/DME Rwy 6**
RNAV (GPS) Rwy 6
NA when local weather not available.

PORTLAND, ME

PORTLAND INTL
JETPORT ..... **ILS or LOC Rwy 11**
ILS or LOC Rwy 29
ILS, Category D, 700-2.

PRESQUE ISLE, ME

NORTHERN MAINE REGIONAL AIRPORT
AT PRESQUE ISLE ..... **ILS or LOC Rwy 1[1,2]**
RNAV (GPS) Rwy 1[1]
RNAV (GPS) Rwy 19[1,3]
RNAV (GPS) Rwy 28[1]
VOR Rwy 19[4]

[1]NA when local weather not available.
[2]Categories B, C, D, 700-2.
[3]Category D, 800-2¼.
[4]Category C, 800-2¼; Category D, 800-2½.

NAME ALTERNATE MINIMUMS

PROVIDENCE, RI

THEODORE FRANCIS GREEN
STATE ..... **ILS or LOC Rwy 5**
ILS or LOC Rwy 23
ILS Rwy 34
NA when control tower closed.

ROCHESTER, NH

SKYHAVEN ..... **RNAV (GPS) Rwy 33**
VOR/DME-A
NA when local weather not available.

ROCKLAND, ME

KNOX COUNTY RGNL ..... **RNAV (GPS) Rwy 3**
RNAV (GPS) Rwy 31
NA when local weather not available.

RUTLAND, VT

RUTLAND -SOUTHERN
VERMONT RGNL ..... **RNAV (GPS) Rwy 1[1]**
RNAV (GPS) Rwy 19[2]
VOR/DME Rwy 19[3]
NA when local weather not available.
[1]Categories A, B, 2400-2; Category C, 2400-3.
[2]Categories A, B, 1500-2; Category C, 1500-3.
[3]Categories A, B, 1800-2; Category C, 1800-3.

VINEYARD HAVEN, MA

MARTHA'S VINEYARD .... **ILS or LOC Rwy 24[1]**
RNAV (GPS) Rwy 6
RNAV (GPS) Rwy 24
VOR Rwy 6
VOR Rwy 24
NA when local weather not available.
[1]NA when control tower closed.

WATERVILLE, ME

WATERVILLE
ROBERT LAFLEUR ..... **RNAV (GPS) Rwy 23**
NA when local weather not available.

WESTFIELD/SPRINGFIELD, MA

BARNES MUNI ..... **ILS or LOC Rwy 20[1,2]**
RNAV (GPS) Rwy 20[1,2]
VOR or TACAN Rwy 2[3,4]
VOR Rwy 20[3,5]

[1]Categories, A,B, 900-2; Category C, 900-2¾; Category D, 900-3.
[2]NA when local weather not available.
[3]NA when control tower closed.
[4]Categories A,B, 900-2; Category C, 900-2¾; Category D, 900-3; Category E, 1300-3.
[5]Categories A,B, 900-2; Category C, 900-2¾; Category D, 900-3.

NAME ALTERNATE MINIMUMS

WHITEFIELD, NH

MOUNT WASHINGTON
RGNL ..... **RNAV (GPS) Rwy 10**
Categories A,B, 900-2; Category C, 900-2¾.

WILLIMANTIC, CT

WINDHAM ..... **LOC Rwy 27[1]**
VOR-A
Category C, 800-2¼.
[1]NA when local weather not available.

WINDSOR LOCKS, CT

BRADLEY INTL ..... **ILS or LOC Rwy 6[1]**
ILS or LOC Rwy 24[2]
ILS or LOC Rwy 33[2]
RNAV (GPS) Rwy 6[2]
RNAV (GPS) Rwy 15[3]
RNAV (GPS) Rwy 24[2]
RNAV (GPS) Rwy 33[2]
VOR or TACAN Rwy 6[4]
VOR or TACAN Rwy 15[5]
VOR or TACAN Rwy 24[6]
VOR or TACAN Rwy 33[6]
[1]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[2]Category D, 900-2¾.
[3]Categories A,B, 1000-2; Category C, 1000-2¾.
[4]Categories A,B, 1000-2; Category C, 1000-2¾, Category D,1000-3, Category E, 1300-3.
[5]Categories A,B, 1200-2; Categories C, D, E, 1200-3.
[6]Category D, 1000-3; Category E, 1300-3.

WORCESTER, MA

WORCESTER RGNL ..... **ILS or LOC Rwy 11[12]**
ILS or LOC Rwy 29[12]
NDB Rwy 11[23]
RNAV (GPS) Rwy 11[23]
RNAV (GPS) Rwy 29[23]
VOR/DME Rwy 33[3]
NA when control tower closed.
[1]ILS, Category B , 700-2 ; Category C, 800-2; Category D, 1000-3.LOC, Category D, 1000-3.
[2]NA when local weather not available.
[3]Category D, 1000-3.

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME	TAKE-OFF MINIMUMS

AUBURN-LEWISTON, ME

AUBURN-LEWISTON MUNI

TAKE-OFF MINIMUMS: **Rwy 17,** 500-2¼ or std. with a min. climb of 266' per NM to 900. **Rwy 22,** std. with a min. climb of 312' per NM to 1500, or 1100-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 17,** climb via heading 165° to 900 before turning northeast. **Rwy 22,** climb to 1500 direct LE LOM. Cross LE LOM at 1500 or above before turning southwest. For climb in visual conditions cross Auburn/Lewiston Muni at or above 1300.

NOTE: **Rwy 4,** multiple trees beginning 297' from departure end of runway, 78' right of centerline, up to 90' AGL/386' MSL. Multiple trees beginning 331' from departure end of runway, 277' left of centerline, up to 86' AGL/323' MSL. Abandoned aircraft 73' from departure end of runway, 478' right of centerline, 19' AGL/289' MSL. Abandoned aircraft 36' from departure end of runway, 451' right of centerline, 18' AGL/288' MSL. Pole 1487' from departure end of runway, 348' right of centerline, 51' AGL/314' MSL. Pole 101' from departure end of runway, 387' left of centerline, 37' AGL/277' MSL. Fence 132' from departure end of runway, 306' right of centerline, 11' AGL/267' MSL. **Rwy 17,** tree 1209' from departure end of runway, 390' right of centerline, 72' AGL/364' MSL. Tree 909' from departure end of runway, 336' right of centerline, 51' AGL/350' MSL. Tree 1819' from departure end of runway, 169' left of centerline, 92' AGL/371' MSL. Tree 1053' from departure end of runway, 252' left of centerline, 60' AGL/336' MSL. Tree 575' from departure end of runway, 175' left of centerline,

NAME	TAKE-OFF MINIMUMS

AUBURN-LEWISTON MUNI(CONT.)

39' AGL/322' MSL. Tree 881' from departure end of runway, 110' right of centerline, 35' AGL/327' MSL. Terrain 159' from departure end of runway, 487' right of centerline, 0' AGL/302' MSL. Tree 1.9 NM from departure end of runway, 247' left of centerline, 129' AGL/576' MSL. Terrain 276' from departure end of runway, 302' right of centerline, 0' AGL/299' MSL. Road 531' from departure end of runway, 156' left of centerline, 0' AGL/305' MSL. Terrain 533' from departure end of runway, 463' right of centerline, 0' AGL/302' MSL. Terrain 18' from departure end of runway, 140' right of centerline, 0' AGL/289' MSL. Tower 1.7 NM from departure end of runway, 4211' left of centerline, 193' AGL/752' MSL. **Rwy 22,** tree 4322' from departure end of runway, 1403' right of centerline, 87' AGL/439' MSL. Tree 4970' from departure end of runway, 616' left of centerline, 62' AGL/414' MSL. Tree 5547' from departure end of runway, 633' right of centerline, 86' AGL/428' MSL. Tree 5242' from departure end of runway, 1108' right of centerline, 51' AGL/419' MSL. Tree 3040' from departure end of runway, 993' right of centerline, 74' AGL/363' MSL. Ground 4784' from departure end of runway, 88' right of centerline, 0' AGL/404' MSL. Ground 3902' from departure end of runway, 811' right of centlerine, 0' AGL/375' MSL. Tree 3189' from departure end of runway, 500' right of centerline, 73' AGL/352' MSL.

AUBURN-LEWISTON MUNI(CON'T)

Rwy 35, tree 1877' from departure end of runway, 357' left of centerline, 104' AGL/344' MSL. Tree 870' from departure end of runway, 380' right of centerline, 72'AGL/312' MSL. Tree 1146' from departure end of runway, 378' left of centerline, 77' AGL/317' MSL. Tree 1520' from departure end of runway, 170' right of centerline, 62' AGL/302' MSL.

AUGUSTA, ME

AUGUSTA STATE

TAKE-OFF MINIMUMS: **Rwys 8, 35,** 300-1. **Rwy 26,** 400-1 or std. with a min. climb of 250' per NM to 700.

BANGOR, ME

BANGOR INTL (BGR)

AMDT 2 09239 (FAA)

NOTE: **Rwy 15,** trees beginning 1694' from DER, 629' left of centerline, up to 79' AGL/278' MSL.

BAR HARBOR, ME

HANCOCK COUNTY-BAR HARBOR

DEPARTURE PROCEDURE: **Rwy 17,** climbing right turn via heading 220° to 2100 before proceeding on course. **Rwy 22,** climb via heading 224° to 1100 before proceeding east or southeast bound. **Rwy 35,** climb via heading 349° to 600 before proceeding on course.

NOTE: **Rwy 4,** road 324' from departure end of runway, 524' left of centerline, 15' AGL/79' MSL. Multiple trees beginning 119' from departure end of runway, 231' right of centerline, up to 60' AGL/193' MSL. **Rwy 17,** bush 116' from departure end of runway, 164' left of centerline, 10' AGL/47' MSL. Tree 245' from departure end of runway, 346' right of centerline, 44' AGL/82' MSL. **Rwy 22,** multiple poles and trees beginning 562' from departure end of runway, 329' left of centerline, up to 60' AGL/135' MSL. Terrain, multiple poles and trees beginning 450' left of departure end of runway, up to 60' AGL/142' MSL. **Rwy 35,** terrain and multiple trees beginning 35' from departure end of runway, 340' left of centerline, up to 60' AGL/217' MSL. Glideslope antenna and multiple trees beginning 657' from departure end of runway, 565' right of centerline up to 60' AGL/146' MSL.

BARRE-MONTPELIER, VT

EDWARD F. KNAPP STATE

TAKE-OFF MINIMUMS: **Rwy 17,** 400-1. **Rwy 23,** 500-2 or std. with a min. climb of 400' per NM to 2600 .

DEPARTURE PROCEDURE: **Rwy 5,** climb runway heading to 2100, then climbing right turn to 3900 direct MPV VOR/DME. **Rwy 17,** climb direct to MPV VOR/DME, climb in holding pattern (N, right turns, 160° inbound) to 3500 before proceeding on course. **Rwy 23,** climbing left turn to 3500 direct MPV VOR/DME. **Rwy 35,** climb runway heading to 1600, then climbing right turn to 3900 direct MPV VOR/DME.

BEDFORD, MA

LAURENCE G. HANSCOM FIELD (BED)

AMDT 4 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwy 11,** 200-1¼ or std. w/ min. climb of 245' per NM to 400, or alternatively, with standard takeoff minimums and a normal 200'/ NM climb gradient, takeoff must occur no later than 2000' prior to departure end of runway. **Rwy 23,** 300-1¾ or std. w/ min.climb of 415' per NM to 400.

NOTE: **Rwy 5,** terrain beginning 2' from departure end of runway, 330' left of centerline, up to 147' MSL. Trees beginning 44' from departure end of runway, 10' left of centerline, up to 87' AGL/214' MSL. Trees beginning 246' from departure end of runway, 113' right of centerline, up to 92' AGL/217' MSL. Fence 152' from departure end of runway, 248' right of centerline, 5' AGL/132' MSL. Bush 171' from departure end of runway, 309' left of centerline, 13' AGL/140' MSL. Light on pole 575' from departure end of runway, 404' right of centerline, 55' AGL/182' MSL. Poles beginning 835' from departure end of runway, 347' right of centerline, up to 55' AGL/177' MSL. Light on pole 1912' from departure end of runway, 504' right of centerline, 59' AGL/177' MSL. **Rwy 11,** tree 2694' from departure end of runway, 924' left of centerline, 65' AGL/192' MSL. Antenna tower 5040' from departure end of runway, 1682' left of centerline, 155' AGL/282' MSL. **Rwy 23,** vehicles on roadway beginning 534' from departure end of runway, left and right of centerline, up to 15' AGL/167' MSL. Trees beginning 917' from departure end of runway, 126' right of centerline, up to 100' AGL/347' MSL. Terrain 982' from departure end of runway, 338' right of centerline, 162' MSL. Trees beginning 1081' from departure end of runway, 161' left of centerline, up to 100' AGL/414' MSL. **Rwy 29,** vehicles on roadway 314' from departure end of runway, 564' left of centerline, 15' AGL/152' MSL. Trees beginning 388' from departure end of runway, 323' left of centerline, up to 72' AGL/240' MSL. Trees beginning 2675' from departure end of runway, 228' right of centerline, up to 96' AGL/246' MSL.

BELFAST, ME

BELFAST MUNI

TAKE-OFF MINIMUMS: **Rwy 33,** 300-1¾ or std. with a min. climb of 219' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 15,** climb heading 136° to 900 before turning south.

NOTE: **Rwy 33,** light pole 1955' from departure end of runway, 510' left of centerline, 100' AGL/297' MSL. Multiple trees beginning 1.4 NM from departure end of runway, 1682' left of centerline, up to 80' AGL/429' MSL.

BENNINGTON, VT

WILLIAM H. MORSE STATE

TAKE-OFF MINIMUMS: **Rwy 13,** 2200-3, restricted to CAT A and B only, CAT C NA. **Rwy 31,** 500-2 or std. with a min. climb of 240' per NM to 1400.

DEPARTURE PROCEDURE: **Rwy 13,** climbing left turn direct to CAM VORTAC, continue climb in hold to 3500 before proceeding on course. **Rwy 31,** climbing right turn direct CAM VORTAC continue climb in hold to 3500 before proceeding on course.

BERLIN, NH

BERLIN RGNL

TAKE-OFF MINIMUMS: **Rwys 18, 36,** 1000-2.

DEPARTURE PROCEDURE: **Rwys 18, 36,** climb visually over the airport to 2100, continue climb to 3000 via BML R-192, then climbing right turn to 4400 direct BML VOR/DME and hold. Climb in holding pattern (N, left turns, 192° inbound) to MEA before proceeding on course.

BEVERLY, MA

BEVERLY MUNI (BVY)

AMDT 2B 08241 (FAA)

TAKE-OFF MINIMUMS: **Rwy 27,** 300-1 or std. w/ min. climb of 315' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 27,** climb heading 270° to 700 before turning left.

NOTE: **Rwy 9,** multiple trees beginning 82' from departure end of runway, 50' left of centerline, up to 114' AGL/232' MSL. Tree 258' from departure end of runway, 47' right of centerline, 87' AGL/192' MSL. **Rwy 16,** multiple trees beginning 286' from departure end of runway, 213' left of centerline, up to 80' AGL/148' MSL. Trees, stack and obstruction light on buildings beginning 121' from departure end of runway, 4' right of centerline up to 90' AGL/194' MSL. **Rwy 27,** multiple trees and antenna beginning 8' from departure end of runway, 144' left of centerline, up to 98' AGL/217' MSL, multiple trees beginning 42' from departure end of runway, 84' right of centerline up to 97' AGL/160' MSL. Building 5290' from departure end of runway, 980' left of centerline, 108' AGL/217' MSL. **Rwy 34,** multiple trees beginning 437' from departure end of runway, 5' left of centerline, 91' AGL/188' MSL. Multiple trees 509' from departure end of runway, 1' right of centerline, 80' AGL/174' MSL.

BIDDEFORD, ME

BIDDEFORD MUNI

TAKE-OFF MINIMUMS: **Rwy 24,** 300-2 or std. w/ min. climb of 214' per NM to 600, or alternatively, w/ std. takeoff minimums and normal 200'/NM climb gradient, takeoff must occur no later than 1700 prior to departure end of runway.

NOTE: **Rwy 6,** multiple trees beginning 121' from departure end of runway, 243' left of centerline, up to 60' AGL/229' MSL. Multiple trees beginning 23' from departure end of runway, 132' right of centerline, up to 60' AGL/219' MSL. Multiple trees beginning 538' from departure end of runway, 6' right of centerline, up to 60' AGL/229' MSL. **Rwy 24,** multiple trees beginning 342' from departure end of runway, 287' left of centerline, up to 60' AGL/219' MSL. Multiple trees beginning 492' from departure end of runway, 242' right of centerline, up to 60' AGL/209' MSL. Multiple trees beginning 1317' from departure end of runway, 44' right of centerline, up to 60' AGL/209' MSL. Assumed obstacle 1.7 NM from departure end of runway, 1802' right of centerline, 200' AGL/429' MSL.

BLOCK ISLAND, RI

BLOCK ISLAND STATE

TAKE-OFF MINIMUMS: **Rwy 28,** 300-1.

DEPARTURE PROCEDURE: **Rwy 28,** climb runway heading at 250' per NM to 400 feet before turning.

BOSTON, MA

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

ADMT 12A 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4L,** 300-1 or std. with a min. climb of 358' per NM to 300. **Rwy 9,** 300-1¼ or std. with a min climb of 272' per NM to 300. **Rwy 14,** 500-3 or std. w/ a min. climb of 223' per NM to 600, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1900' prior to DER.

Rwy 22L, 300-1 or standard when tower reports no tall vessels in the departure area. **Rwy 22R,** 300-1¾ or std. w/ a min climb of 320' per NM to 400. **Rwy 27,** std. w/ a min. climb of 477' per NM to 1300. **Rwys 32, 33R,** NA-environmental. **Rwy 33L,** 300-1¾ or std. w/ a min. climb of 226' per NM to 400, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 2000' prior to DER.

DEPARTURE PROCEDURE: **Rwy 4L,** climb on a heading between 292° clockwise to 216° from DER, or minimum climb of 208' per NM to 1100 for all other courses. **Rwy 14,** climb on a heading between 322° clockwise to 258° from DER, or minimum climb of 237' per NM to 1100 for all other courses. **Rwys 22L, 22R,** climb heading 216° to 800 before turning right.

Rwy 33L, climb heading 331° to 700 before turning left.

NOTE: **Rwy 4L,** light on blast fence 184' from DER, 249' left of centerline, 6' AGL/23' MSL. Tree 2094' from DER, 92' left of centerline, 47' AGL/77' MSL. Tree 3975' from DER, 1486' left of centerline, 50' AGL/198' MSL. Tree 4228' from DER, 544' left of centerline, 47' AGL/143' MSL. Ship 694' from DER, on centerline, 50' AGL/50' MSL. Light on blast fence 230' from DER, 63' right of centerline, 6' AGL/23' MSL. Light on pole and multiple trees beginning 1806' from DER, 740' right of centerline, up to 33' AGL/79' MSL. **Rwy 4R,** light on pole and multiple trees beginning 1807' from DER, 403' left of centerline, up to 33' AGL/79' MSL. Ship 579' from DER, on centerline, 50' AGL/50' MSL. Crane 2001' from DER, 434' right of centerline, 101' AGL/114' MSL. Mobile crane 2009' from DER, 206' right of centerline, 114' AGL/134' MSL. **Rwy 9,** antenna on standpipe and tank beginning 5878' from DER, 1429' left of centerline, up to 138' AGL/217' MSL. Ship 763' from DER, on centerline, 65' AGL/65' MSL. **Rwy 14,** ship rig 5439' from DER, 1824' right of centerline, 176' AGL/176' MSL. Wind turbine 2.5 NM from DER, 2998' right of centerline, 401' AGL/434' MSL. **Rwy 15L,** sign 169' from DER, 279' right of centerline, 6' AGL/19' MSL. **Rwy 15R,** sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL. **Rwy 22L,** rig 2441' from DER, 35' left of centerline, 176' AGL/176' MSL. Obstruction light pole 3586' from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane 3676' from DER, 440' right of centerline, 122' AGL/145' MSL. **Rwy 22R,** rig 4586' from DER, 1535' left of centerline, 176' AGL/176' MSL. Rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL. Stacks 1.3 NM from DER, 1598' right of centerline, 255' AGL/278' MSL. **Rwy 27,** multiple buildings beginning 1.3 NM from DER, 129' left of centerline, up to 251' AGL/261' MSL. Light pole and rod on pole beginning 1691' from DER, 749' right of centerline, up to 60' AGL/100' MSL. Rig 4822' from DER, 35' right of centerline, 176' AGL/176' MSL. Multiple buildings beginning 1.7 NM from DER, 1479' right of centerline, up to 685' AGL/701' MSL.

GENERAL EDWARD LAWRENCE LOGAN INTL (CON'T)

Rwy 33L, multiple lights, rod on tank and light on building beginning 796' from DER, 604' left of centerline, up to 46' AGL/73' MSL. Building and chimney on building beginning 4301' from DER, 1079' left of centerline, up to 40' AGL/149' MSL. Bridge 1.4 NM from DER, 2615' left of centerline, 263' AGL/263' MSL. Multiple trees, wind direction indicator on tower and sign beginning 249' from DER, 51' right of centerline, up to 35' AGL/101' MSL.

BRIDGEPORT, CT

IGOR I. SIKORSKY MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 29,** 600-2 or std. with a min. climb of 280' per NM to 700.

NOTE: **Rwy 6,** cross departure end of runway at or above 34' AGL/42' MSL. **Rwy 11,** 26' AGL/41' MSL road/vehicle 207' from departure end of runway. Cross departure end of runway at or above 35' AGL/43' MSL. **Rwy 24,** cross departure end of runway at or above 23' AGL/30' MSL. **Rwy 29,** cross departure end of runway at or above 35' AGL/45' MSL.

BRUNSWICK NAS (KNHZ)

BRUNSWICK, ME 09295

Rwy 1L, CAUTION: Cross DER at or above 30' AGL/102' MSL.

Rwy 1R, CAUTION: Cross DER at or above 10' AGL/82' MSL.

BURLINGTON, VT

BURLINGTON INTL (BTV)

AMDT 12 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1,** std. w/ min. climb of 288' per NM to 3200 or 3000-3 for climb in visual conditions. **Rwy 15,** std. w/ min climb of 447' per NM to 4800 or 3000-3 for climb in visual conditions. **Rwy 19,** std. w/ min climb of 377' per NM to 4100 or 3000-3 for climb in visual conditions. **Rwy 33,** std. w/ min of 210' per NM to 2400 or 3000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 1,** climb heading 006° to 3200 before proceeding on course or for climb in visual conditions, cross Burlington Intl airport at or above 3200 before proceeding on course. **Rwy 15,** climb heading 146° to 3900 before proceeding on course or for climb in visual conditions, cross Burlington Intl airport at or above 3200 before proceeding on course. **Rwy 19,** climb heading 186° to 4100 before proceeding on course or for climb in visual conditions, cross Burlington Intl airport at or above 3200 before proceeding on course. **Rwy 33,** climb heading 326° to 2400 before proceeding on course or for climb in visual conditions, cross Burlington Intl airport at or above 3200 before proceeding on course.

NOTE: **Rwy 1,** trees beginning 575' from departure end of runway, 75' left of centerline, up to 61' AGL/380' MSL. Trees beginning 1396' from departure end of runway, 216' right of centerline, up to 45' AGL/384' MSL. **Rwy 15,** bush 318' from departure end of runway, 292' left of centerline, 4' AGL/343' MSL. Trees beginning 1400' from departure end of runway, 358' right of centerline, up to 88' AGL/1173' MSL. Trees beginning 1801' from departure end of runway, 377' left of centerline, up to 88' AGL/1197' MSL. Hopper 2029' from departure end of runway 524' left of centerline, 61' AGL/400' MSL. Building 3411' from departure end of runway, 1117' left of centerline, 110' AGL/430' MSL. **Rwy 19,** trees beginning 168' from departure end of runway, 24' right of centerline, up to 87' AGL/436' MSL. Trees beginning 172' from departure end of runway, 75' left of centerline, up to 74' AGL/413' MSL. **Rwy 33,** trees beginning 190' from departure end of runway, 225' right of centerline, up to 50' AGL/356' MSL. Pole 971' from departure end of runway, 755' left of centerline, 58' AGL/338' MSL. Trees beginning 1843' from departure end of runway, 866' left of centerline, up to 78' AGL/357' MSL.

CARIBOU, ME

CARIBOU MUNI

TAKE-OFF MINIMUMS: **Rwys 1, 11, 19, 29,** 300-1.

CHATHAM, MA

CHATHAM MUNI

TAKE-OFF MINIMUMS: **Rwy 6,** 300-1 or std. w/ min. climb of 462' per NM to 300. **Rwy 24,** 400-2 or std. w/ min. climb of 248' per NM to 500.

NOTE: **Rwy 6,** multiple trees beginning 26' from departure end of runway, 158' left of centerline, up to 100' AGL/169' MSL. Multiple trees beginning 62' from departure end of runway, 245' right of centerline, up to 100' AGL/159' MSL. **Rwy 24,** multiple trees beginning 179' from departure end of runway, 216' left of centerline, up to 100' AGL/159' MSL. Multiple trees beginning 318' from departure end of runway, 227' right of centerline, up to 100' AGL/159' MSL. Tower 1.6 NM from departure end of runway, 2526' right of centerline, 313' AGL/318' MSL.

CLAREMONT, NH

CLAREMONT MUNI

TAKE-OFF MINIMUMS: **Rwy 11,** 700-3 or std. with a min. climb of 490' per NM to 1400, or 3100 2½ for climb in visual conditions. **Rwy 29,** 1300-3 or 3100 2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 11, 29,** climb in visual conditions to cross Claremont Muni at or above 3000.

NOTE: **Rwy 11,** multiple trees and towers on rising terrain, 1.5 NM from departure end of runway, 3000' right of centerline, and 1.6 NM from departure end of runway, 2660' left of centerline, up to 200' AGL/1143' MSL. **Rwy 29,** multiple trees on rising terrain, 1.1 NM from departure end of runway, 800' left of centerline, and 1.3 NM from departure end of runway, 2000' right of centerline, up to 80' AGL/1044' MSL. Trees and towers 2 NM from departure end of runway on centerline, up to 200' AGL/929' MSL.

CONCORD, NH

CONCORD MUNI

TAKE-OFF MINIMUMS: **Rwy 12,** 500-1 or std. with a min. climb of 350' per NM to 1300. **Rwy 17,** 300-1 or std. with a min. climb of 220' per NM to 1200. **Rwy 30,** 800-3 or std. with a min. climb of 260' per NM to 1300. **Rwy 35,** 300-1 or std. with a min. climb of 320' per NM to 1300.

DEPARTURE PROCEDURE: **Rwy 12,** climb to 900 then climbing right turn to CON VORTAC before proceeding on course. **Rwy 17,** climb to 1200 before turning on course. **Rwy 35,** climb to 1300 before turning on course.

DANBURY, CT

DANBURY MUNI

TAKE-OFF MINIMUMS: **Rwy 8,** 600-2. **Rwy 17**, 600-1. **Rwy 26,** 500-2. **Rwy 35,** 900-2 or std. with a min. climb of 360' per NM to 1500.

DEPARTURE PROCEDURE: **Rwys 8, 17,** climb runway heading to 1200 before turning on course. **Rwys 26, 35,** climb runway heading to 1500 before proceeding on course.

DANIELSON, CT

DANIELSON

TAKE-OFF MINIMUMS: **Rwy 13,** 700-2 or std. with a min. climb of 300' per NM to 1100.

DEPARTURE PROCEDURE: **Rwy 13,** climb to 1100 before turning on course. **Rwy 31,** climb to 1000 feet before turning on course.

DEXTER, ME

DEXTER RGNL

TAKE-OFF MINIMUMS: **Rwy 7, 25,** NA.

DEPARTURE PROCEDURE: **Rwy 16,** climb runway heading to 1000 before turning westbound. **Rwy 34,** climb runway heading to 1800 before turning northeastbound.

EASTPORT, ME

EASTPORT MUNI

TAKE-OFF MINIMUMS: **Rwy 33,** 300-1 or std. with a min. climb of 240' per NM to 300.

ELIOT, ME

LITTLEBROOK AIR PARK

NOTE: **Rwy 12,** house 118'right of departure end of runway, 23' AGL/129' MSL. Brush 200' from departure end of runway, 66' left of centerline, 16' AGL/122' MSL. Trees 345' from departure end of runway, 140' left of centerline, 71' AGL/130' MSL. **Rwy 30,** trees 220' from departure end of runway, 125' right of centerline, 19' AGL/144' MSL. Brush 100' right of departure end of runway, 20' AGL/159' MSL.

FITCHBURG, MA

FITCHBURG MUNI

TAKE-OFF MINIMUMS: **Rwys 2, 14, 20,** NA-obstacles. **Rwy 32,** std. with a min. climb of 314' per NM to 1600, or 1500-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 32,** climb via heading 324° to 2600 before proceeding on course. For climb in visual conditions: cross Fitchburg Muni Airport at or above 1800.

NOTE: **Rwy 32,** multiple trees beginning 144' from departure end of runway, 260' left of centerline up to 100' AGL/796' MSL, multiple trees beginning 36' from departure end of runway, 150' right of centerline up to 100' AGL/796' MSL.

FRENCHVILLE, ME

NORTHERN AROOSTOOK RGNL

TAKE-OFF MINIMUMS: **Rwy 32,** 300-1¼ or std. w/ min. climb of 503' per NM to 1300.

NOTE: **Rwy 14,** trees beginning 101' from departure end of runway, 348' right of centerline, up to 80' AGL/1079' MSL. **Rwy 32,** trees beginning 3128' from departure end of runway, 952' left of centerline, up to 80' AGL/1179' MSL, trees beginning 1608' from departure end of runway, 433' right of centerline, up to 80' AGL/1119' MSL.

FRYEBURG, ME

EASTERN SLOPES RGNL (IZG)
AMDT 4 08325 (FAA)

TAKE-OFF MINIMUMS: **Rwy 14,** std. with a min. climb of 310' per NM to 2100, or 1600-3 for climb in visual conditions. **Rwy 32,** 300-1½ with a min. climb of 471' per NM to 6600, or 1600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14,** climb heading 143° to 3000 before turning. For climb in visual conditions cross Eastern Slopes Rgnl airport at or above 3800 before proceeding on course. **Rwy 32,** for climb in visual conditions cross Eastern Slopes Rgnl airport at or above 3800 before proceeding on course.

NOTE: **Rwy 32,** tree 454' from departure end of runway, 558' left of centerline, 100' AGL/579' MSL. Trees beginning 1249' from departure end of runway, 734' right of centerline, up to 100' AGL/659' MSL. Trees and tower beginning 1.1 NM from departure end of runway, 2155' left of centerline, up to 100' AGL/1139' MSL.

GARDNER, MA

GARDNER MUNI

TAKE-OFF-MINIMUMS: **Rwy 18,** 300-1. **Rwy 36,** 500-2.

GREAT BARRINGTON, MA

WALTER J. KOLADZA

TAKE-OFF MINIMUMS: **Rwy 11,** 1200-2 or std. with a min. climb of 440' per NM until passing 2000. **Rwy 29,** 800-2 or std. with a min. climb of 310' per NM to 1600.

DEPARTURE PROCEDURE: **Rwys 11, 29,** climb runway heading to 2200 before proceeding on course.

GREENVILLE, ME

GREENVILLE MUNI

TAKE-OFF MINIMUMS: **Rwy 3,** 1000-3.
Rwys 21, 32, 300-1.

DEPARTURE PROCEDURE: **Rwy 3,** climbing left turn heading 005° to 3000 before proceeding on course. **Rwys 14, 21,** climb runway heading to 3000 before proceeding on course. **Rwy 32,** climbing right turn heading 005° to 3000 before proceeding on course.

GREENVILLE SEAPLANE BASE

TAKE-OFF MINIMUMS: **North/South,** 600-1.

DEPARTURE PROCEDURE: **North,** climb to 3400 via heading 360° before proceeding on course. **South,** climb to 3400 via heading 180° before proceeding on course.

GROTON (NEW LONDON), CT

GROTON-NEW LONDON

TAKE-OFF MINIMUMS: **Rwy 33,** 300-1 or std. with a min. climb of 350' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 33,** climb via heading 329° to 500, then climbing right turn to intercept GON VOR/DME R-335 to 2000 before proceeding on course.

NOTE: **Rwy 5,** road, multiple trees, obstruction lights and towers beginning 215' from departure end of runway, 500' left of centerline, up to 70' AGL/91' MSL. Tree 1.3 NM from departure end of runway, 1083' left of centerline, 87' AGL/202' MSL. **Rwy 15,** bush 53' from departure end of runway, 238' right of centerline, 8' AGL/11' MSL. Multiple trees beginning 1769' from departure end of runway, 276' left of centerline, up to 30' AGL/156' MSL. **Rwy 23,** bush 570' from departure end of runway, 490' right of centerline, 12' AGL/21' MSL. **Rwy 33,** railroad, obstruction lights and trees beginning 160' from departure end of runway, crossing centerline, up to 20' AGL/88' MSL. Multiple trees, obstruction lights and tanks beginning 4475' from departure end of runway, 1397' left of centerline, up to 55' AGL/226' MSL.

HARTFORD, CT

HARTFORD-BRAINARD

TAKE-OFF MINIMUMS: **Rwys 11,29,** NA

DEPARTURE PROCEDURE: **Rwy 2,** climb runway heading to 1000 before proceeding on course. **Rwy 20,** climb to 1900 via heading 175° before proceeding on course.

NOTE: **Rwy 2,** 100' AGL treeline 169' from departure end of runway, right of centerline to 2545' from departure end of runway, 191' left of centerline. **Rwy 20,** 100' AGL treeline 1290' from departure end of runway, 497' right of centerline to 2503' from departure end of runway, 32' left of centerline.

HAVERHILL, NH

DEAN MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 1,** std. w/ min. climb of 339' per NM to 2000, or 1800-2 for climb in visual conditions. **Rwy 19,** NA terrain.

DEPARTURE PROCEDURE: **Rwy 1,** climbing left turn heading 240° and LEB VOR/DME R-029 to 4800 before proceeding on course. Do not exceed 180 KIAS until established on LEB VOR/DME R-029. For climb in visual conditions: Cross Dean Memorial Airport southwest bound at or above 2200 via LEB VOR/DME R-036 to 5000 before proceeding on course. Do not exceed 180 KIAS until established on LEB VOR/DME R-036.

NOTE: **Rwy 1,** multiple buildings beginning 180' from departure end of runway, 74' left of centerline, up to 25' AGL/571' MSL. Building 300' from departure end of runway, 100' right of centerline, 35' AGL/584' MSL. Vehicles at departure end of runway, beginning 500' right of centerline,to 500' left of centerline 15' AGL/596' MSL. Multiple trees beginning 1450' from departure end of runway left and right of centerline, up to 100' AGL/599' MSL. Multiple trees beginning 1.3 NM from departure end of runway left and right of centerline, up to 100' AGL/819' MSL. Multiple trees and towers beginning 1.7 NM from departure end of runway left and right of centerline, up to 200' AGL/919' MSL.

HIGHGATE, VT

FRANKLIN COUNTY STATE

NOTE: **Rwy 19,** trees 979' from departure end of runway, 604' right of centerline, 77' AGL/294' MSL. Trees 1008' from departure end of runway, 600' right of centerline, 83' AGL/300' MSL.

HOPEDALE, MA

HOPEDALE INDUSTRIAL PARK

TAKE-OFF MINIMUMS: **Rwy 18,** 300-1 or std. with a min. climb of 320' per NM to 900. **Rwy 36,** 600-1 or std. with a min. climb of 280' per NM to 1100.

DEPARTURE PROCEDURE: **Rwy 18,** climb runway heading to 900 before turning on course. **Rwy 36,** climb runway heading to 1100 before turning on course.

HOULTON, ME

HOULTON INTL

TAKE-OFF MINIMUMS: **Rwys 1, 5,** 300-1. **Rwy 19,** 500-1. **Rwy 23,** 300-1 or std. with a min. climb of 220' per NM to 700.

HYANNIS, MA

BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

AMDT 3A 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwy 33,** 300-1 or std. with a min. climb of 354' per NM to 300.

DEPARTURE PROCEDURE: **Rwys 24,33,** climb runway heading to 700 before proceeding on course.

NOTE: **Rwy 33,** pole 3961' from departure end of runway, 1531' right of centerline, 97' AGL/235' MSL.

JAFFREY, NH

JAFFREY AIRPORT-SILVER RANCH

TAKE-OFF MINIMUMS: **Rwys 16, 34,** 500-1.

DEPARTURE PROCEDURE: **Rwy 16,** climb to 3000 direct to GDM VOR/DME before proceeding on course. **Rwy 34,** climbing right turn to 3000 direct to GDM VOR/DME before proceeding on course.

KEENE, NH

DILLANT-HOPKINS

TAKE-OFF MINIMUMS: **Rwy 2,** 1200-2. **Rwy 14,** 2200-2 or std. with a min. climb of 450' per NM to 2500. **Rwy 20,** 1000-2 or std. with a min. climb of 320' per NM to 1700. **Rwy 32,** 1600-2.

DEPARTURE PROCEDURE: **Rwy 2,** climb runway heading to 2100, then climbing left turn to assigned altitude direct EEN VORTAC before proceeding on course. **Rwy 14,** climb runway heading to 2500, then climbing right turn to assigned altitude direct EEN VORTAC before proceeding on course. **Rwy 20**, climb direct EEN VORTAC until passing 3000, if not at 3000 or above at EEN VORTAC climb in EEN holding pattern; (NE, right turns, 215° inbound) before proceeding on course. **Rwy 32,** climbing right turn heading 350° to 2100, then climbing left turn to assigned altitude direct EEN VORTAC before proceeding on course.

NOTE: **Rwy 2,** 81' AGL trees 400' from departure end of runway and 500' right of centerline. **Rwy 32,** 89' AGL trees 800' from departure end of runway and 600' right of centerline.

LACONIA, NH

LACONIA MUNI (LCI)

AMDT 4 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 8,** 600-1¾ or std. w/ min. climb of 652' per NM to 1300. **Rwy 26,** 300-1 or std. w/ min. climb of 421' per NM to 900.

DEPARTURE PROCEDURE: **Rwy 8,** climb to 2500 via heading 079° and ENE VORTAC R-315 inbound to 3500 before proceeding on course. **Rwy 26,** climb heading 264° to 2500 before proceeding on course.

NOTE: **Rwy 8,** trees, terrain, and pole beginning 65' from DER, 20' right of centerline, up to 50' AGL/1112' MSL. Trees and terrain beginning 93' from DER, 5' left of centerline, up to 71' AGL/590' MSL. **Rwy 26,** trees and antenna on tower beginning 123' from DER, 42' left of centerline, up to 84' AGL/743' MSL. Trees beginning 2145' from DER, 626' right of centerline, up to 93' AGL/672' MSL.

LAWRENCE, MA

LAWRENCE MUNI

TAKE-OFF MINIMUMS: **Rwy 5,** 300-1 or std. with a min. climb of 290' per NM to 400. **Rwy 14,** 300-1 or std. with a min.climb of 430' per NM to 500. **Rwy 23,** 300-1 or std. with a min. climb of 240' per NM to 400. **Rwy 32,** 300-1.

LEBANON, NH

LEBANON MUNI (LEB)
AMDT 2 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwy 7,**300-1 w/ min. climb of 380' per NM to 3100, or 2000-3 for climb in visual conditions. **Rwy 18,** std. w/ min. climb of 380' per NM to 3800, or 2000-3 for climb in visual conditions. **Rwy 25,** std. w/ min. climb of 380' per NM to 3100, or 2000 - 3 for climb in visual conditions. **Rwy 36,** std. w/ min. climb of 350' per NM to 1800, or 2000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 7,** climb heading 075° to 1900 before proceeding on course. **Rwy 18,** climb heading 184° to 3100 before proceeding on course. **Rwy 25,** climb heading 255° to 3100 before proceeding on course. **Rwy 36,** climb heading 004° to 1800 before proceeding on course. **Rwys 7, 18, 25, 36,** - for climb in visual conditions: cross Lebanon Muni airport at or above 2500 before proceeding on course.

NOTE: **Rwy 7,** numerous trees beginning 104' from departure end of runway, 255' right of centerline up to 112' AGL/752' MSL. Pole 505' from departure end of runway, 391' right of centerline, 72' AGL/672' MSL. Bush 426' from departure end of runway, 259' right of centerline, 9' AGL/589' MSL. Multiple trees beginning 13' from departure end of runway, 209' left of centerline, up to 100' AGL/1100' MSL.**Rwy 18,** numerous trees, and obstruction light poles beginning 288' from departure end of runway, 107' right of centerline, up to 100' AGL/ 784' MSL. Numerous trees and obstruction light poles beginning 433' from departure end of runway, 206' left of centerline, up to 82' AGL/962' MSL. Bush 216' from departure end of runway, 471' right of centerline, 16' AGL/619' MSL.**Rwy 25,** multiple trees beginning 340' from departure end of runway, 400' left of centerline, up to 91' AGL/871' MSL. Tree 382' from departure end of runway, 502' right of centerline, 91' AGL/581' MSL. **Rwy 36,** multiple trees beginning 243' from departure end of runway, 355' left of centerline, up to 81' AGL/581' MSL. Pole 155' from departure end of runway, 505' left of centerline, 30' AGL/590' MSL. Tree 357' from departure end of runway, 511' right of centerline, 83' AGL/583' MSL.

LINCOLN, ME

LINCOLN RGNL

TAKE-OFF MINIMUMS: **Rwy 17,**800-2.**Rwy 35,**300-1.

LYNDONVILLE, VT

CALEDONIA COUNTY

TAKE-OFF MINIMUMS: **Rwy 2,** 500-2.

DEPARTURE PROCEDURE: **Rwy 2,** climb heading 024° to 2500, then climbing right turn via heading 190° and LLX bearing 040° to LLX NDB, then via LLX NDB 220° bearing to 4200 before proceeding on course. **Rwy 20,** climb heading 190°, then climbing left turn on 165° bearing from LLX NDB to 3400 before proceeding on course.

NOTES: **Rwy 2,** multiple trees beginning 795' from departure end of runway, 361' left of centerline, up to 80' AGL/1536' MSL. Terrain 184' from departure end of runway, 533' left of centerline, 1200' MSL. Terrain 346' from departure end of runway, 578' left of centerline, 1220' MSL. Terrain 550' from departure end of runway, 638' left of centerline, 1240' MSL. **Rwy 20,** multiple trees beginning 2' from departure end of runway, 174' right of centerline, up to 80' AGL/1261' MSL. Terrain 470' from departure end of runway, 75' left of centerline, 1200' MSL.

MACHIAS, ME

MACHIAS VALLEY

TAKE-OFF MINIMUMS: **Rwy 18,** 400-2 or std. with a min. climb of 350' per NM to 700. **Rwy 36,** 400-2 or std. with a min. climb of 370' per NM to 600.

NOTE: **Rwy 18,** numerous terrain/trees right and left of runway centerline within 8000' from departure end of runway, up to 100' AGL/479' MSL. **Rwy 36,** numerous terrain/trees left and right of runway centerline within 15000' of departure end of runway, up to 100' AGL/439' MSL. Tower 7929' from departure end of runway 883' left of centerline, 85' AGL/403' MSL.

MANCHESTER, NH

MANCHESTER (MHT)
AMDT9 08325 (FAA)

TAKE-OFF MINIMUMS: **Rwy 17,** 300-1¼ or std. w/ min. climb of 277' per NM to 600. **Rwy 35,** 300-1½ or std. w/ min. climb of 253' per NM to 500.

DEPARTURE PROCEDURE: **Rwy 6,** climb heading 058° to 1000 before turning right. **Rwy 24,** climb heading 245° to 900 before proceeding on course. **Rwy 35,** climb heading 353° to 1300 before turning left.

NOTE: **Rwy 6,** trees beginning 238' from departure end of runway, 266' left of centerline, up to 108' AGL/308' MSL. Trees beginning 272' from departure end of runway, 378' right of centerline, up to 67' AGL/277' MSL. **Rwy 17,** trees, poles, and buildings beginning 761' from departure end of runway, 4' right of centerline, up to 98' AGL/433' MSL. Sign, pole, trees, and buildings beginning 976' from departure end of runway, 2' left of centerline, up to 108' AGL/457' MSL. **Rwy 24,** trees beginning 810' from departure end of runway, 424' left of centerline, up to 123' AGL/293' MSL. **Rwy 35,** tree and poles beginning 719' from departure end of runway, 558' right of centerline, up to 51' AGL/281' MSL. Pole and trees beginning 891' from departure end of runway, 527' left of centerline, up to 80' AGL/414' MSL.

MANSFIELD, MA

MANSFIELD MUNI

TAKE-OFF MINIMUMS: **Rwy 32,** 300-1. **Rwys 4,22,** NA.

MARSHFIELD, MA

MARSHFIELD MUNI-GEORGE HARLOW FIELD

TAKE-OFF MINIMUMS: **Rwy 24,** 300-2¾ or std. w/ min. climb of 234' per NM to 400.

NOTE: **Rwy 6,** multiple trees beginning 715' from departure end of runway, 163' left of centerline, up to 60' AGL/69' MSL, boat mast 2608' from departure end of runway on centerline, 125' AGL/125' MSL. **Rwy 24,** multiple trees beginning 221' from departure end of runway, 541' left of centerline, up to 60' AGL/69' MSL, trees beginning 810' from departure end of runway, 26' right of centerline, up to 60' AGL/69' MSL, multiple trees beginning 3077' from departure end of runway, 1022' left of centerline, up to 200' AGL/299' MSL, multiple trees beginning 9899' from departure end of runway, 493' left of centerline, up to 200' AGL/289' MSL, multiple trees beginning 1039' from departure end of runway, 1177' right of centerline, 200' AGL/299' MSL.

MERIDEN, CT

MERIDEN MARKHAM MUNI

TAKE-OFF MINIMUMS: **Rwy 18,** 500-3 or std. w/ min. climb of 235' per NM to 1100. **Rwy 36,** std. w/ min. climb of 420' per NM to 1600, or 1500-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 18,** climb heading 176° to 1100 before proceeding on course. **Rwy 36,** climbing left turn heading 320° to 1600 before proceeding on course, or for climb in visual conditions, cross Meriden Markham Municipal at or above 1500 before proceeding on course.

NOTE: **Rwy 18,** 200' AAO 1.9 NM from departure end of runway, 3441' left of centerline, 200' AGL/417' MSL. 200' AAO 1.9 NM from departure end of runway, 3563' left of centerline, 200' AGL/417' MSL. Terrain 50' from departure end of runway, 440' right of centerline, 109' MSL. 200' AAO 1.9 NM from departure end of runway, 3346' left of centerline, 200' AGL/410' MSL. Terrain 122' from departure end of runway, 223' right of centerline, 105' MSL. 200' AAO 2.5 NM from departure end of runway, 1984' left of centerline, 200' AGL/483' MSL. 200' AAO 2.5 NM from departure end of runway, 1889' left of centerline, 200' AGL/489' MSL. Multiple powerlines beginning 500' from departure end of runway, 216' right of centerline, up to 52' AGL/172' MSL. Multiple powerlines beginning 781' from departure end of runway, 192' left of centerline, up to 52' AGL/150' MSL. **Rwy 36,** multiple towers 3 NM from departure end of runway, 2284' right of centerline, up to 1117' AGL/1220' MSL. Multiple terrain/AAO 2.5 NM from departure end of runway, 3748' right of centerline, up to 200' AGL/903' MSL.

MILLINOCKET, ME

MILLINOCKET MUNI

TAKE-OFF MINIMUMS: **Rwy 29,** 700-1 or std. with a min. climb of 270' per NM to 1300. **Rwy 34,** 700-1 or std. with a min. climb of 290' per NM to 1300.

MONTAGUE, MA

TURNERS FALLS

TAKE-OFF MINIMUMS: **Rwy 16,** 1200-1. **Rwy 34,** 1300-1 or std. with a min. climb rate of 370' per NM to 1900.

MORRISVILLE, VT

MORRISVILLE-STOWE STATE

TAKE-OFF MINIMUMS: **Rwy 1,** 2000-2 or std. with a min. climb of 300' per NM to 2400. **Rwy 19,** 2100-3.

DEPARTURE PROCEDURE: **Rwy 1,** climbing right turn direct JRV NDB, continue climb to 2400 via the JRV bearing 050°, then climbing right turn direct to JRV NDB, continue climb in hold (NE, left turns, 230° inbound) to 3500 before proceeding on course. **Rwy 19,** climbing right turn direct JRV NDB and climb in the hold (NE, left turns, 230° inbound) to 3500 before proceeding on course.

NOTE: TAKE-OFF MINIMUMS restricted to CAT A & B aircraft only.

NANTUCKET, MA

NANTUCKET MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 12,** 700-1 or std. with a min. climb of 330' per NM to 800.

DEPARTURE PROCEDURE: **Rwys 6,12,15,24,30, 33,** climb runway heading to 800 before proceeding on course.

NOTE: **Rwy 33,** 70' AGL ant. on building 954' from departure end of runway, 585' right of centerline.

NASHUA, NH

BOIRE FIELD

DEPARTURE PROCEDURE: **Rwy 32,** climb heading 319° to 900 before proceeding on course.

NOTE: **Rwy 14,** REIL, multiple poles, and multiple trees beginning 18' from departure end of runway, 60' left of centerline, up to 99' AGL/289' MSL. Pole, REILS, and multiple trees beginning 20' from departure end of runway, 97' right of centerline, up to 89' AGL/283' MSL. **Rwy 32,** multiple trees beginning 340' from departure end of runway, 249' left of centerline, up to 87' AGL/296' MSL. Multiple trees beginning 1694' from departure end of runway, 191' right of centerline, up to 87' AGL/295' MSL.

NEW BEDFORD, MA

NEW BEDFORD RGNL

TAKE-OFF MINIMUMS: **Rwy 14,** 300-1 or std. with a min. climb of 280' per NM to 300. **Rwy 32,** 300-1 or std. with a min. climb of 270' per NM to 300.

NEW HAVEN, CT

TWEED-NEW HAVEN

TAKE-OFF MINIMUMS: **Rwy 2,** 300-1. **Rwy 14,** 300-1 or std. with a min. climb of 340' per NM until 200. **Rwy 20,** 300-1 or std. with a min. climb of 240' per NM until 100. **Rwy 32,** 400-1 or std. with a min. climb of 420' per NM until 500.

NEWPORT, RI

NEWPORT STATE (UUU)
AMDT 3 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4,** 300-2¼ or std. with a min. climb of 230' per NM to 600, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 2100' prior to departure end of runway. **Rwy 16,** 200-1 or std. w/ min. climb of 430' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 4,** climb heading 039° to 1200 before proceeding on course.

NOTE: **Rwy 4,** trees beginning 1.7 NM from departure end of runway, 916' right of centerline, up to 100' AGL/ 459' MSL. **Rwy 16,** tower 3782' from departure end of runway, 666' right of centerline, 100' AGL/285' MSL, tower 4203' from departure end of runway, 1100' right of centerline, 132' AGL/310' MSL. **Rwy 34,** terrain 102' from departure end of runway, 424' right of centerline, 159' MSL, vehicle on road 726' from departure end of runway, 602' right of centerline.

NEWPORT, VT

NEWPORT STATE

TAKE-OFF MINIMUMS: **Rwy 5,** 1000-3 or std. with a min. climb of 500' per NM to 2900. **Rwy 23,** 1000-3 or std. with a min. climb of 410' per NM to 2900.

DEPARTURE PROCEDURE: **Rwy 5,** climb direct EFK NDB. Climb in hold to 5000 before proceeding on course. **Rwys 18,23,** climb to 1400, then climbing left turn direct EFK NDB to cross EFK NDB at or above 2900. Climb in hold to 5000 before proceeding on course. **Rwy 36,** climb to 1400, then climbing right turn direct EFK NDB. Climb in hold to 5000 before proceeding on course.

NORRIDGEWOCK, ME

CENTRAL MAINE AIRPORT OF NORRIDGEWOCK

TAKE-OFF MINIMUMS: **Rwy 3,** 300-1. **Rwy 15,** 300-1 or std. with a min. climb rate of 300' until passing 700. **Rwy 21,** 1100-2 or std. with a min. climb rate of 210' until passing 1700.

DEPARTURE PROCEDURE: **Rwy 21,** climb runway heading to 800 before turning southeast. **Rwy 33,** climbing right turn direct AUG VOR/DME before proceeding on course.

NORTH KINGSTOWN, RI

QUONSET STATE

TAKE-OFF MINIMUMS: **Rwy 5,** 300-1 or std. with a min. climb of 320' per NM to 300. **Rwy 16,** 300-1 or std. with a min. climb of 250' per NM to 300.

NORTHAMPTON, MA

NORTHAMPTON

TAKE-OFF MINIMUMS: **Rwy 14,** 1300-2. **Rwy 32,** 1700-2 or std. with a min. climb of 330' per NM to 2000.

DEPARTURE PROCEDURE: **Rwy 14,** climb runway heading to 1300 before proceeding on course. **Rwy 32,** climb runway heading to 2000 before proceeding on course.

NOTE: **Rwy 14,** 80' AGL trees 7510' from departure end of runway, 2242' right of centerline.

NORWOOD, MA

NORWOOD MEMORIAL (OWD)
AMDT 5 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 10,** 300 - 2 ¼ or std. w/ min. climb of 340' per NM to 400. **Rwy 17,** 300 – 2¼ or std. w/ min. climb of 220' per NM to 400, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1600' prior to DER. **Rwy 28,** 400 - 2 or std. w/ min. climb of 385' per NM to 400. **Rwy 35,** 300 - 2 or std. w/ min. climb of 230' per NM to 500, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 2100' prior to DER.

DEPARTURE PROCEDURE: **Rwy 10,** climb heading 104° to 1100 before turning north. **Rwy 28,** climb heading 284° to 700 before turning north. **Rwy 35,** climb heading 335° to 1900 before turning east.

NOTE: **Rwy 10,** trees and bushes beginning abeam DER, 177' right of centerline, up to 100' AGL/178' MSL. Tree 4488' from DER, 911' right of centerline, up 100' AGL/ 237' MSL. Tree 5428' from DER, 1946' right of centerline, 100' AGL/267' MSL. Trees beginning abeam DER, 34' left of centerline, up to 100' AGL/149' MSL. Tree 1.90 NM from DER 2124' left of centerline, 100' AGL/346' MSL. **Rwy 17,** trees beginning 42' from DER, 248' left of centerline, up to 78' AGL/126' MSL. Tree1.2 NM from DER, 2183' left of centerline, 100' AGL/257' MSL. Trees beginning 612' from DER, 155' right of centerline, up to 100' AGL/198' MSL. Tree 1.8 NM from DER, 3301' right of centerline, 100' AGL/346' MSL. **Rwy 28,** trees beginning 594' from DER, 41' left of centerline, up to 70' AGL/188' MSL. Building 173' from DER, 514' left of centerline, 30' AGL/79' MSL. Stack, spire, rod on stack, light, antenna, and power poles beginning 202' from DER, 211' left of centerline, up to 99' AGL/335' MSL. Building 173' from DER, 514' left of centerline, 30' AGL/79' MSL. Vehicle on highway 1499' from DER, 877' left of centerline, 17' AGL/105' MSL. Spire, pole, antenna on tank, and antenna on spire beginning 1225' from DER, 301' right of centerline, up to 70' AGL/335' MSL. Vehicle on highway 1,316' from DER, 459' right of centerline, 17' AGL/85' MSL. Building 1016' from DER 59' right of centerline, 30' AGL/89' MSL. Tower 4466' from DER, 238' right of centerline, 157' AGL/262' MSL. Tree 1.7 NM from DER, 673' right of centerline, 100' AGL/365' MSL. Trees 549' from DER, 49' right of centerline, up to 70' AGL/188' MSL. **Rwy 35,** trees beginning 647' from DER, 36' left of centerline, up to 74' AGL/133'MSL. Tree 1.4 NM from DER, 2382' left of centerline, up to 100' AGL/306' MSL. Tree 1.7 NM from DER, 2657' left of centerline, up to 100' AGL/316' MSL. Buildings 1994' from DER, 1031' left of centerline, up to 70' AGL/129' MSL. Trees beginning 694' from DER, 60' right of centerline, up to 73' AGL/125' MSL. Poles beginning 5686' from DER, 769' right of centerline, up to 148' AGL/216' MSL

OLD TOWN, ME

DEWITT FIELD OLD TOWN MUNI

NOTE: **Rwy 4,** trees beginning 61' from departure end of runway, 337' right of centerline, up to 80' AGL/239' MSL. Trees beginning 281' from departure end of runway 363' left of centerline, up to 80' AGL/199' MSL. **Rwy 12,** trees beginning 338' from departure end of runway, 33' right of centerline, up to 80' AGL/259' MSL. **Rwy 22,** trees beginning 223' from departure end of runway, 296' left of centerline, up to 80' AGL/239' MSL. Trees beginning 514' from departure end of runway, 184' right of centerline, up to 80' AGL/209' MSL. **Rwy 30,** trees beginning 952' from departure end of runway, 55' left of centerline, up to 80' AGL/199' MSL.

ORANGE, MA

ORANGE MUNI

TAKE-OFF MINIMUMS: **Rwys 1,14,19,32,** 800-1.

DEPARTURE PROCEDURE: Depart over the airport at 1300, climb to 3500 direct GDM VOR/DME, depart GDM VOR/DME at assigned enroute altitude.

OXFORD, CT

WATERBURY-OXFORD

TAKE-OFF MINIMUMS: **Rwy 36,** 300-1 or std. w/ a min. climb of 240' per NM to 1000, alternatively, w/ std. takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1900' prior to departure end of runway.

NOTE: **Rwy 18,** multiple trees and transmission towers beginning 510' from departure end of runway, 595' left of centerline, up to 100' AGL/777' MSL. Tree 2157' from departure end of runway, 154' from centerline, up to 100' AGL/735' MSL. **Rwy 36,** multiple trees and terrain beginning 464' from departure end of runway, 535' from centerline, up to 100' AGL/881' MSL. Tree 54' from departure end of runway, 450' left of centerline, up to 100' AGL/736' MSL. Tree 618' from departure end of runway, 369' left of centerline, up to 100' AGL/745' MSL.

OXFORD, ME

OXFORD COUNTY RGNL

TAKE-OFF MINIMUMS: **Rwy 15,** 600-3 or 1800-2½ for climb in visual conditions. **Rwy 33,** std. w/ min. climb of 475' per NM to 2000, or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15,** climb heading 149° to 1300 before proceeding on course or for climb in visual conditions cross Oxford County Rgnl Airport at or above 2000 before proceeding on course. **Rwy 33,** climb heading 329° to 2000 before proceeding on course or for climb in visual conditions cross Oxford County Rgnl Airport at or above 2000 before proceeding on course.

NOTE: **Rwy 15,** multiple trees beginning 3607' from departure end of runway, 572' left of centerline, up to 100' AGL/679' MSL. Multiple assumed obstacles beginning 1.7 NM from departure end of runway, 1478' left of centerline, up to 200' AGL/849' MSL. **Rwy 33,** multiple trees beginning 4121' from departure end of runway, 70' left of centerline, up to 100' AGL/499' MSL. Multiple trees beginning 5446' from departure end of runway, 239' right of centerline, up to 100' AGL/719' MSL. Multiple assumed obstacles beginning 1.6 NM from departure end of runway, 393' right of centerline, up to 200' AGL/1079' MSL.

PAWTUCKET, RI

NORTH CENTRAL STATE (SFZ)

AMDT 3 09127 (FAA)

NOTE: **Rwy 5,** tree 105' from DER, 233' right of centerline, 15' AGL/434' MSL. Wind sock 2' from DER, 233' right of centerline, 15' AGL/426' MSL. Bush 41' from DER, 250' left of centerline, 14' AGL/428' MSL. Tree 470' from DER, 294' left of centerline, 14' AGL/433' MSL. **Rwy 15,** trees beginning 149' from DER, 218' left of centerline, up to 99' AGL/500' MSL. Multiple trees beginning 70' from DER, 129' right of centerline, up to 99' AGL/593' MSL. **Rwy 23,** multiple trees beginning 145' from DER, 252' left of centerline, up to 30' AGL/449' MSL. **Rwy 33,** multiple trees beginning 24' from DER, 120' right of centerline, up to 69' AGL/494' MSL. Multiple trees beginning 142' from DER, 41' left of centerline, up to 69' AGL/464' MSL.

PITTSFIELD, MA

PITTSFIELD MUNI

TAKE-OFF MINIMUMS: **Rwys 14, 32,** NA.

Rwy 8, 1100-2 or std. with a min. climb of 270' per NM to 2500. **Rwy 26,** 800-2 or std. with a min. climb of 360' per NM to 2100.

DEPARTURE PROCEDURE: **Rwy 8,** climb runway heading to 2000, then climbing right turn via CTR R-331 to 3000 before proceeding on course. **Rwy 26,** climb runway heading to 2400 before proceeding on course.

NOTE: **Rwy 8,** 120' AGL tree 370' from departure end of runway, 533' right of centerline.

PITTSFIELD, ME

PITTSFIELD MUNI

TAKE-OFF MINIMUMS: **Rwys 1, 19,** 300-1.

PLYMOUTH, MA

PLYMOUTH MUNI

TAKE-OFF MINIMUMS: **Rwy 6,** 300-1 or std. with a min. climb of 390' per NM to 500. **Rwys 15,** 300-1. **Rwy 24,** 300-1 or std. with a min. climb of 220' per NM to 400. **Rwy 33,** 300-1 or std. with a min. climb of 210' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 6,** climb runway heading to 900 before proceeding on course.

PORTLAND, ME

PORTLAND INTL JETPORT (PWM)
AMDT 4 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 11,** 200-1¼ or std. w/ min. climb of 270' per NM to 400. **Rwy 36,** 400-2 ¾ or std. w/ min. climb of 265' per NM to 700.

NOTE: **Rwy 11,** trees beginning 6012' from departure end of runway, 2043' left of centerline, up to 100' AGL/248' MSL. Trees beginning 225' from departure end of runway, 540' right of centerline, up to 100' AGL/139' MSL. **Rwy 18,** towers 960' from departure end of runway, 666' right of centerline, up to 86' AGL/152' MSL. Building 1156' from departure end of runway, 758' right of centerline, 70' AGL/121' MSL. Trees beginning 149' from departure end of runway, 309' right of centerline, up to 100' AGL/130' MSL. Trees beginning 1227' from departure end of runway, 404' left of centerline, up to 60' AGL/101' MSL. **Rwy 29,** trees beginning 2294' from departure end of runway, 833' left of centerline, up to 100' AGL/200' MSL. Trees beginning 3000' from departure end of runway, 1195' right of centerline, up to 100' AGL/178' MSL. **Rwy 36,** towers beginning 2.1NM from departure end of runway, 1368' right of centerline, up to 360' AGL/481' MSL. Trees beginning 22' from departure end of runway, 494' left of centerline, up to 100' AGL/111' MSL. Trees beginning 1280' from departure end of runway, 831' right of centerline, up to 100' AGL/128' MSL. Vehicles on road, light poles, fence and building 20' from departure end of runway, 423' left of centerline, up to 50' AGL/81' MSL.

PORTSMOUTH, NH

PORTSMOUTH INTERNATIONAL AT PEASE

DEPARTURE PROCEDURE: **Rwy 16,** use PEASE DEPARTURE.

NOTE: **Rwy 34,** building 519' from departure end of runway, 439' right of centerline, 15' AGL/115' MSL, trees beginning 2752' from departure end of runway, 1090' right of centerline, up to 90' AGL/170' MSL.

PRESQUE ISLE, ME

NORTHERN MAINE RGNL AIRPORT AT PRESQUE ISLE

TAKE-OFF MINIMUMS: **Rwy 1,** 300-1 or std. with a min. climb of 360' per NM to 900. **Rwy 10,** 300-1 or std. with a min. climb of 250' per NM to 900. **Rwy 19,** 800-1 or std. with a min. climb of 230' per NM to 1600.

DEPARTURE PROCEDURE: **Rwy 1,** climb runway heading to 1200 before proceeding on course. **Rwy 10,** climb runway heading to 1700 before proceeding on course.

PRINCETON, ME

PRINCETON MUNI

DEPARTURE PROCEDURE: **Rwy 24,** climbing right turn direct PNN VOR/DME before proceeding on course.

PROVIDENCE, RI

THEODORE FRANCIS GREEN STATE

TAKE-OFF MINIMUMS: **Rwy 34,** std. w/ a min. climb of 269' per NM to 500, or 300-2 w/ a min. climb of 250' per NM to 1200, or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 34,** for climb in visual conditions: cross Theodore Francis Green State Airport at or above 900 MSL before proceeding on course.

NOTE: **Rwy 5,** multiple trees beginning 1272' from departure end of runway, 506' left of centerline, up to 50' AGL/109' MSL. Multiple trees beginning 1541' from departure end of runway, 738' right of centerline, up to 73' AGL/123' MSL. **Rwy 16,** multiple trees beginning 85' from departure end of runway, 98' right of centerline, up to 36' AGL/105' MSL. Multiple trees beginning 364' from departure end of runway, 127' left of centerline, up to 68' AGL/112' MSL. Multiple light poles beginning 2797' from departure end of runway, 914' right of centerline, up to 66' AGL/110' MSL. Antenna 3890' from departure end of runway, 1352' right of centerline, 91' AGL/151' MSL. Tower 3931' from departure end of runway, 1377' right of centerline, 77' AGL/137' MSL. **Rwy 34,** vent 105' from departure end of runway, 310' right of centerline, 47' AGL/76' MSL. Blast fence 211' from departure end of runway, 209' left of centerline, 7' AGL/61' MSL. Pole 312' from departure end of runway, 279' right of centerline, 20' AGL/80' MSL. Multiple trees beginning 352' from departure end of runway, 484' right of centerline, up to 79' AGL/136' MSL. Obstruction light 400' from departure end of runway, 189' left of centerline, 15' AGL/74' MSL. Vent 546' from departure end of runway, 518' left of centerline, 26' AGL/85' MSL. Multiple poles beginning 593' from departure end of runway, 245' left of centerline, up to 68' AGL/97' MSL. Multiple trees beginning 1233' from departure end of runway, 112' left of centerline, up to 79' AGL/132' MSL. Light 710' from departure end of runway, 617' left of centerline, 24' AGL/93' MSL. Tower 9063' from departure end of runway, 2916' right of centerline, 255' AGL/310' MSL.

PROVINCETOWN, MA

PROVINCETOWN MUNI

NOTE: **Rwy 7,** trees beginning 133' from departure end of runway, 118' right of centerline up to 33' AGL/37' MSL. Trees beginning 165' from departure end of runway, 89' left of centerline up to 33' AGL/47' MSL. **Rwy 25,** bush 376' from departure end of runway, 575' right of centerline, 12' AGL/21' MSL.

RANGELEY, ME

RANGELEY LAKE SEAPLANE BASE

TAKE-OFF MINIMUMS: **Rwy 6,** NA. **Rwy 24,** 800-2 or std. with a min. climb of 280' per NM to 2500.

DEPARTURE PROCEDURE: **Rwy 6,** NA. **Rwy 24,** climb to 2800 via the 274° bearing to RQM NDB. Climb in RQM NDB holding to 4000 before proceeding on course.

STEVEN A. BEAN MUNI

TAKE-OFF MINIMUMS: **Rwys 14, 32,** 600-2.

DEPARTURE PROCEDURE: **Rwy 14,** climbing right turn direct RQM NDB to cross at or above 4000 before proceeding on course. **Rwy 32,** climbing left turn direct RQM NDB to cross at or above 4000 before proceeding on course.

ROCHESTER, NH

SKYHAVEN (DAW)

AMDT 6 09351 (FAA)

DEPARTURE PROCEDURE: **Rwy 33,** climb heading 327° to 800, then climbing left turn heading 250° to intercept CON VORTAC R-095 to 3000 before proceeding on course.

NOTE: **Rwy 15,** trees beginning 450' from DER, 295' left of centerline, up to 110' AGL/400' MSL. Trees and poles beginning 111' from DER, 389' right of centerline, up to 57' AGL/367' MSL. **Rwy 33,** trees beginning 200' from DER, 154' right of centerline, up to 120' AGL/443' MSL. Trees beginning 106' from DER, 160' left of centerline, up to 103' AGL/406' MSL.

ROCKLAND, ME

KNOX COUNTY RGNL

TAKE-OFF MINIMUMS: **Rwy 3,** 300-1 or std. with a min. climb of 270' per NM to 2000, or 1100-2½ for climb in visual conditions. **Rwy 31,** std. with a min. climb of 300' per NM to 1300, or 1100-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 3, 31,** for climb in visual conditions: cross Knox County Rgnl at or above 1000' MSL before proceeding on course.

NOTE: **Rwy 3,** multiple trees, bushes, obstruction lights and towers beginning 108' from departure end of runway, 433' left of centerline, up to 146' AGL/206' MSL. **Rwy 13,** multiple trees, antennas, and light poles beginning 475' from departure end of runway, 548' left of centerline, up to 80' AGL/155' MSL. **Rwy 21,** multiple trees beginning 284' from departure end of runway, 255' left of centerline, up to 65' AGL/110' MSL. **Rwy 31,** multiple trees beginning 2025' from departure end of runway, 895' right of centerline, up to 74' AGL/115' MSL.

RUTLAND, VT

RUTLAND-SOUTHERN VERMONT RGNL (RUT)

AMDT 3 09211 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1,** std. w/ min. climb of 439' per NM to 2800, or 3600-3 for climb in visual conditions. **Rwy 13,** NA-obstacles. **Rwy 19,** std. w/ min. climb of 470' per NM to 3300, or 3600-3 for climb in visual conditions. **Rwy 31,** std. w/ min. climb of 420' per NM to 4500, or 3600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 1,** climb via 013° course to DYO NDB, cross DYO NDB at or above 6000, if not at 6000, depart DYO NDB on bearing 325° to 6000 before proceeding on course. For climb in visual conditions: cross Rutland-Southern Vermont Rgnl airport at or above 4300 before proceeding on course. **Rwy 19,** climb heading 194° to 1400, then climbing right turn via 025° course to DYO NDB, cross DYO NDB at or above 6000, if not at 6000, depart DYO NDB on bearing 325° to 6000 before proceeding on course. For climb in visual conditions: cross Rutland-Southern Vermont Rgnl airport at or above 4300 before proceeding on course. **Rwy 31,** climb heading 329° to 1600, then climbing right turn via 025° course to DYO NDB, cross DYO NDB at or above 6000, if not at 6000, depart DYO NDB on bearing 325° to 6000 before proceeding on course. For climb in visual conditions: cross Rutland-Southern Vermont Rgnl airport at or above 4300 before proceeding on course.

NOTE: **Rwy 1,** tree 46' from DER, 417' left of centerline, 80' AGL/829' MSL. Tree 79' from DER, 424' right of centerline, 80' AGL/805' MSL. **Rwy 19,** trees beginning 391' from DER, 178' left of centerline, up to 80' AGL/864' MSL. Trees beginning 166' from DER, 303' right of centerline, up to 80' AGL/843' MSL. **Rwy 31,** tree 357' from DER, 400' left of centerline, 80' AGL/843' MSL. Road 334' from DER, 94' left of centerline, 20' AGL/799' MSL. Tree 885' from DER, 201' right of centerline, 80' AGL/818' MSL. Tree 891' from DER, 403' right of centerline, 80' AGL/827' MSL.

SANFORD, ME

SANFORD RGNL

TAKE-OFF MINIMUMS: **Rwys 25, 32,** 300-1.

DEPARTURE PROCEDURE: **Rwy 25,** climb straight ahead to 1600 before proceeding on course.

Rwy 32, climbing right turn to heading 045° to 1600 before proceeding on course.

NOTE: **Rwy 7,** trees beginning 449' from departure end of runway, 250' right of centerline, up to 66' AGL/299' MSL. Trees beginning 83' from departure end of runway, 90' left of centerline, up to 64' AGL/298' MSL.

SOUTHBRIDGE, MA

SOUTHBRIDGE MUNI

TAKE-OFF MINIMUMS: **Rwy 2,** 300-1 or std. with a min. climb of 260' per NM until passing 1000.

Rwys 10, 28 NA.

SPRINGFIELD, VT

HARTNESS STATE (SPRINGFIELD)

TAKE-OFF MINIMUMS: **Rwys 5, 11, 29,** NA. **Rwy 23,** 900-3 or std. with a min. climb of 362' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 23,** climb direct to SXD NDB, climb in SXD NDB holding pattern (SW, right turns, 050° inbound) to 5000 before proceeding on course.

NOTE: **Rwy 23,** numerous trees 863' from departure end of runway, 340' right of centerline, 80' AGL/642' MSL. Trees 1618' from departure end of runway, 900' right of centerline, 80' AGL/ 658' MSL. Trees 2.4 NM from departure end of runway, 3600' left of centerline, 80' AGL/1262' MSL.

STOW, MA

MINUTE MAN AIRFIELD

TAKE-OFF MINIMUMS: **Rwy 21,** 300-1 or std. with a min. climb of 390' per NM to 600. **Rwy 3,** 300-1. **Rwys 12, 30,** NA

DEPARTURE PROCEDURE: **Rwy 21,** climb runway heading to 2000 before proceeding on course.

TAUNTON, MA

TAUNTON MUNI-KING FIELD (TAN)

AMDT 2 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwys 4, 22,** NA-Turf runway. **Rwy 12,** 200-1½ or standard with minimum climb of 362' per NM to 300. **Rwy 30,** 200-1 or std. w/ min climb of 291' per NM to 300.

NOTE: **Rwy 12,** Trees and terrain beginning 61' from departure end of runway, 128' right of centerline, up to 80' AGL/229' MSL. Trees and terrain beginning 93' from departure end of runway, 204' left of centerline, up to 80' AGL/159' MSL. **Rwy 30,** Terrain beginning 147' from departure end of runway, 284' right of centerline, 43' MSL. Trees and terrain beginning 1044' from departure end of runway, 320' left of centerline, up to 80' AGL/199' MSL.

VINEYARD HAVEN, MA

MARTHAS VINEYARD

NOTE: **Rwy 6,** multiple trees beginning 627' from departure end of runway, 652' left of centerline up to 40' AGL/100' MSL. Terrain 143' from departure end of runway, 305' left of centerline, 0' AGL/69' MSL. Tree 1142' from departure end of runway, 747' right of centerline, 58' AGL/98' MSL. **Rwy 15,** light pole 411' from departure end of runway, 475' right of centerline, 47' AGL/97' MSL. Multiple trees beginning 276' from departure end of runway, 385' left of centerline, up to 37' AGL/97' MSL. Multiple trees beginning 411' from departure end of runway, 475' right of centerline, up to 37' AGL/97' MSL. **Rwy 24,** multiple antennas on buildings beginning 486' from departure end of runway, 265' left of centerline, up to 50' AGL/75' MSL. Multiple trees beginning 761' from departure end of runway, 210' left of centerline, up to 24' AGL/84' MSL. Multiple trees beginning 710' from departure end of runway, 402' right of centerline, up to 47' AGL/ 107' MSL. Terrain beginning 7' from departure end of runway, 459' right of centerline, up to 0' AGL/59' MSL. **Rwy 33,** bush 67' from departure end of runway, 242' right of centerline, 16' AGL/76' MSL. Multiple trees beginning 36' from departure end of runway, 498' left of centerline, up to 47' AGL/107' MSL. Multiple trees beginning 159' from departure end of runway, 347' right of centerline, up to 37' AGL/97' MSL. Terrain beginning 6' from departure end of runway, 111' right of centerline, up to 0' AGL/73' MSL.

WATERVILLE, ME

WATERVILLE ROBERT LAFLEUR

TAKE-OFF MINIMUMS: **Rwys 14, 32,** 300-1.

WEST DOVER, VT

MOUNT SNOW

TAKE-OFF MINIMUMS: **Rwy 1,** std. with a min. climb of 492' per NM to 6000, or 2200-3 for climb in visual conditions. **Rwy 19,** std. with a min. climb of 236' per NM to 5000, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 1,** climb via VWD NDB 352° bearing to 6000 before proceeding on course. For climb in visual conditions: Maintain 180 knots or less in climb, cross Mount Snow Airport at or above 4500. **Rwy 19,** climb via VWD NDB 191° bearing to 5000 before proceeding on course. For climb in visual conditions: Maintain 180 knots or less in climb, cross Mount Snow Airport at or above 4500.

NOTE: **Rwy 1,** brush 200' from departure end of runway, 70' left and right of centerline, 20' AGL/1970' MSL; multiple trees 1200' from departure end of runway, left and right of centerline, 90' AGL/2040' MSL: trees 2813' from departure end of runway, 594' right of centerline, 90' AGL/2156' MSL; trees 2140' from departure end of runway, 326' right of centerline, 90' AGL/2131' MSL; trees 2776' from departure end of runway, 210' right of centerline, 90' AGL/2137' MSL; trees 560' from departure end of runway, 578' right of centerline, 90' AGL/2078' MSL; trees 3351' from departure end of runway, 1056' left of centerline, 90' AGL/2137' MSL. **Rwy 19,** brush 200' from departure end of runway, 100' left and right of centerline, 20' AGL/1968' MSL, trees 1200' from departure end of runway, left and right of centerline, 90' AGL/2038' MSL.

WESTERLY, RI

WESTERLY STATE

TAKE-OFF MINIMUMS: **Rwy 25,** 300-1 or std. with a min. climb of 466' per NM to 400. **Rwy 32,** 300-1 or std. with a min. climb of 218' per NM to 300.

DEPARTURE PROCEDURE: **All Runways,** climb runway heading to 500 before proceeding on course.

NOTE: **Rwy 14,** multiple trees from 20 to 1300' from departure end of runway, 10 to 500' left/right of centerline, ranging from 110 to 173' MSL. **Rwy 25,** multiple trees from 4180 to 6600 ' from departure end of runway, 10 to 500 ' left/right of centerline, ranging from 92 to 150' MSL. Water tower 2950' from departure end of runway, 1040' left of centerline, 120' AGL/252' MSL. **Rwy 32,** multiple trees from 30 to 1750' from departure end of runway, 10 to 500' left/right of centerline, ranging from 91 to 155' MSL.

WESTFIELD, MA

BARNES MUNI

TAKE-OFF MINIMUMS: **Rwy 15,** 300-2 or std. with a min. climb of 260' per NM to 700. **Rwy 33,** 1200-3 or std. with a min. climb of 250' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 2,** climb runway heading to 1700 before proceeding on course. **Rwy 15,** climb runway heading to 1400 before proceeding on course. **Rwy 20,** climb runway heading to 2200 before proceeding on course. **Rwy 33,** climb runway heading to 1500 before proceeding on course.

WESTOVER ARB/METROPOLITAN, (KCEF)

SPRINGFIELD/CHICOPEE, MA

. . . . . Rwy 5, 900-3*
03191 Rwy 33, 1400-3**

* Or standard with minimum climb of 250/NM to 900.

** Or standard with minimum climb of 320/NM to 1400.

RWY 15: 307' tree 1013' from departure endof RWY, 526' left of extended centerline, 294'tree 1268' from departure end of RWY, 619' left of extended centerline, 317' tree 1340' from departure end of RWY, 686' left of extended centerline, 318' tree 1686' from departure end of RWY, 911' left of extended centerline, 305' tree 1911' from departure end of RWY, 832' left of extended centerline, 321' tree 2104' from departure end of RWY, 942' left of extended centerlineline, 329' tree 2959' from departure end of RWY, 1277' left of extended centerline, 334' tree 3236' from departure end of RWY, 1278' left of extended centerline, 343' tree 3515' from departure end of RWY, 1287' left of extended centerline, 310' tree 2421' from departure end of RWY, 1062' left of extended centerline, 323' tree 2695' from departure end of RWY, 369' right of extended centerline, 321' tree 2796' from departure end of RWY, 608' right of extended centerline, 321' tree 2945' from departure end of RWY, 909' right of extended centerline, 335' tree 3567' from departure end of RWY, 1320' left of extended centerline. RWY 23: 296' tree 1191' from departure end of RWY, 726' left of extended centerline; 289' tree 1704' from departure end of RWY, 202' right of extended centerline; 291' tree 1737' from departure end of RWY, 205' left of extended centerline.

WHITEFIELD, NH

MOUNT WASHINGTON RGNL

TAKE-OFF MINIMUMS: **Rwy 10,** 3300-3 or std. with a min. climb of 390' per NM to 4900. **Rwy 28,** 2700-3 or std. with a min. climb of 330' per NM to 4400.

DEPARTURE PROCEDURE: **Rwy 10,** climb runway heading to 2200, then climbing left turn direct GMA NDB. Cross GMA NDB at or above 5000 before proceeding on course. **Rwy 28,** climb direct GMA NDB, climb in holding pattern (W, right turns, 104° inbound) to 5000 before proceeding on course.

NOTE: **Rwy 10,** 67' AGL trees 194' from departure end of runway, 494' left of centerline 67' AGL/1130' MSL. **Rwy 28,** 65' AGL trees 294' from departure end of runway, 517' right of centerline 65' AGL/1096' MSL.

WILLIMANTIC, CT

WINDHAM (IJD)

AMDT 5 08297 (FAA)

TAKE-OFF MINIMUMS: **Rwy 9,** std. w/ min. climb of 340' per NM to 1100, or 1100-2½ for climb in visual conditions. **Rwy 18,** 300-2 or std. w/ min. climb of 408' per NM to 700. **Rwy 27,** 400-2 or std. w/ min. climb of 290' per NM to 700. **Rwy 36,** std. w/ min. climb of 401' per NM to 1100, or 1100-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 9,** climb heading 089° to 700 before proceeding on course, or for climb in visual conditions cross Windham Airport at or above 1200 before proceeding on course. **Rwy 18,** climb heading 170° to 1200 before turning right. **Rwy 27,** climb heading 269° to 800 before proceeding on course. **Rwy 36,** for climb in visual conditions cross Windham Airport at or above 1200 before proceeding on course.

NOTE: **Rwy 9,** trees beginning 50' from departure end of runway, 118' right of centerline, up to 80' AGL/669' MSL. Pole and trees beginning 284' from departure end of runway, 12' left of centerline, up to 86' AGL/529' MSL. Fence 119' from departure end of runway, 207' left of centerline, 6' AGL/246' MSL. **Rwy 18,** trees beginning 49' from departure end of runway, 16' right of centerline, up to 80' AGL/402' MSL. Trees beginning 317' from departure end of runway, 47' left of centerline, up to 80' AGL/529' MSL. Bush 248' from departure end of runway, 93' left of centerline, 14' AGL/261' MSL. Light standard 415' from departure end of runway, 149' left of centerline 32' AGL/279' MSL. **Rwy 27,** obstacle light on antenna and trees beginning 45' from departure end of runway, 46' left of centelrine, up to 99' AGL/299' MSL. Trees beginning 193' from departure end of runway, 230' right of centerline, up to 80' AGL/549' MSL. Obstruction light on localizer, 83' from departure end of runway, on centerline, 8' AGL/247' MSL. **Rwy 36,** trees beginning 150' from departure end of runway, 155' right of centerline, up to 80' AGL/339' MSL. Trees beginning 195' from departure end of runway, 24' left of centerline, up to 80' AGL/559' MSL.

WINDSOR LOCKS, CT

BRADLEY INTL (BDL)

AMDT 2 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwy 33,** 700-3 or std. w/ min. climb of 326' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 1,** Climb heading 013° to 1000 before proceeding on course. **Rwy 33,** Climb heading 328° to 1000 before proceeding on course.

NOTES: **Rwy 1,** Trees beginning 887' from departure end of runway, 493'left of centerline, up to 100' AGL/239' MSL. Trees beginning 1846' from departure end of runway, on centerline, up to 100' AGL/265' MSL. **Rwy 6,** Trees beginning 21' from departure end of runway, 464' left of centerline, up to 100' AGL/184' MSL. Trees beginning 1335' from departure end of runway, on centerline, up to 100' AGL/289' MSL. **Rwy 15,** Vehicle on road 453' from departure end of runway, 615' left of centerline, 15' AGL/186' MSL. Trees beginning 2341' from departure end of runway, 767' right of centerline, up to 76' AGL/244' MSL. Vehicle on road 409' from departure end of runway, 591' left of centerline, 15' AGL/186' MSL. Trees beginning 1520' from departure end of runway, 429' right of centerline, up to 77' AGL/219' MSL. **Rwy 19,** Aircraft 1843' from departure end of runway, 223' right of centerline, 40' AGL/269' MSL. Light pole 2843' from departure end of runway, 223' right of centerline, up to 88' AGL/222' MSL. **Rwy 24,** obstruction light fence 1240' from departure end of runway, 784' left of centerline, 50' AGL/215' MSL. Trees beginning 3389' from departure end of runway, 599' left of centerline, up to 100' AGL/ 267' MSL trees beginning 2346' from departure end of runway, 489' right of centerline, up to 70' AGL/273' MSL. **Rwy 33,** Trees beginning 1590' from departure end of runway, on centerline up to 100' AGL/256' MSL. Obstruction light tower 2.4 NM from departure end of runway, 3534' left of centerline 117' AGL/774' MSL. Trees beginning 1618' from departure end of runway, 580' right of centerline, up to 100' AGL/252' MSL. Trees beginning 3125' from departure end of runway, 308' right of centerline, up to 100' AGL/256' MSL.

WISCASSET, ME

WISCASSET

TAKE-OFF MINIMUMS: **Rwy 7,** 300-1 or std. with a min. climb of 240' per NM to 600.

WORCESTER, MA

WORCESTER RGNL

TAKE-OFF MINIMUMS: **Rwy 29,** 300-2 or std. with a min. climb of 250' per NM to 1300. **Rwy 33,** 700-2 or std. with a min. climb of 320' per NM to 2000.

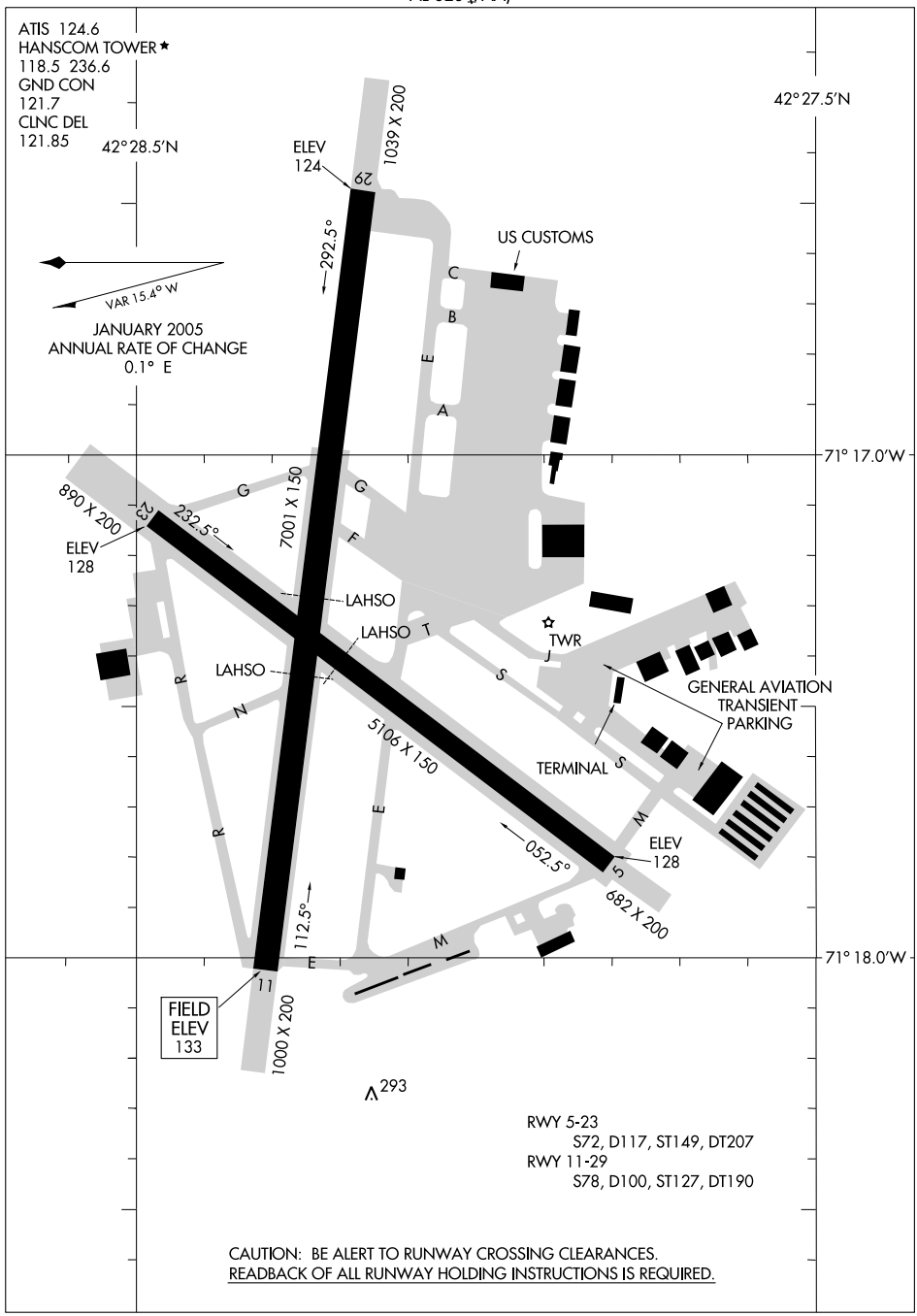
DEPARTURE PROCEDURE: **Rwy 29,** climb runway heading to 1300 before proceeding on course. **Rwy 33,** climb runway heading to 2000 before proceeding on course.

07242

AIRPORT DIAGRAM

AL-626 (FAA)

BEDFORD / LAURENCE G. HANSCOM FIELD (BED)
BEDFORD, MASSACHUSETTS



RWY 5-23
S72, D117, ST149, DT207
RWY 11-29
S78, D100, ST127, DT190

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

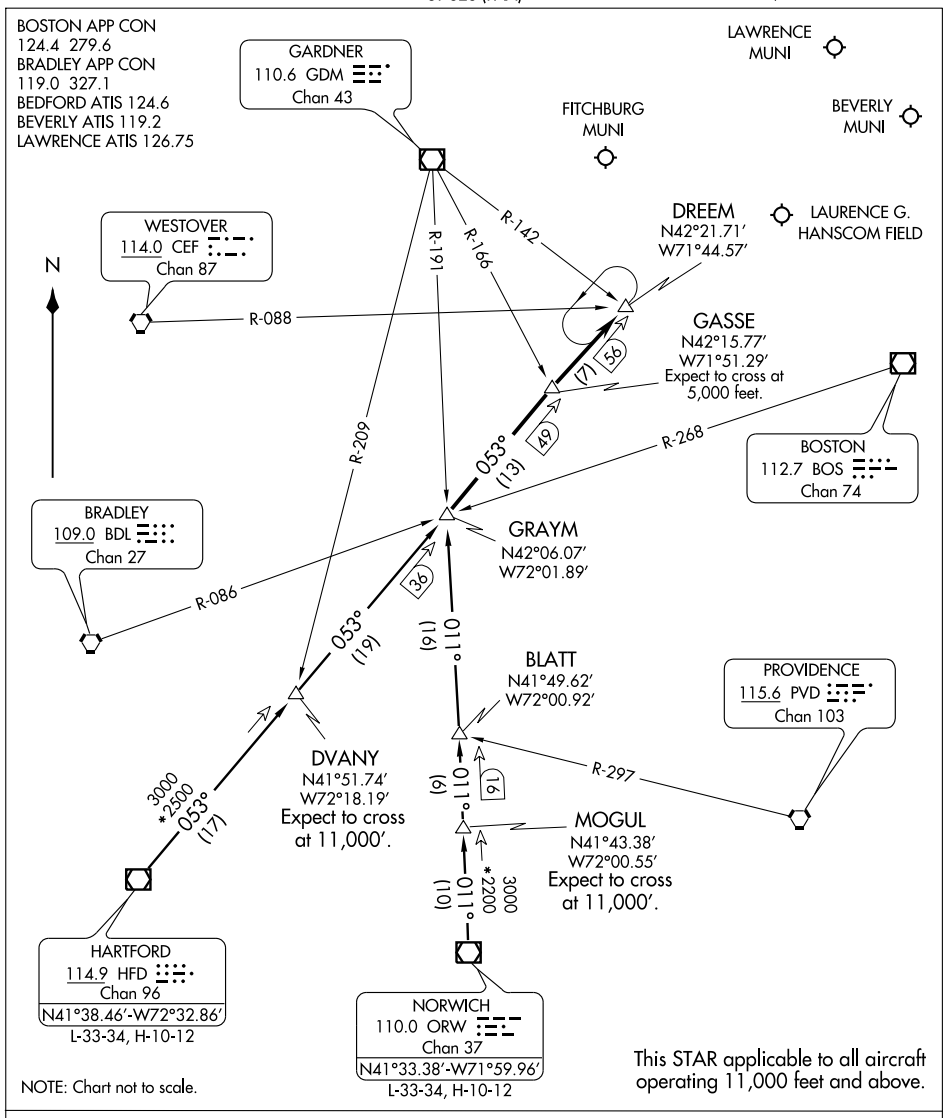
NE-1, 17 DEC 2009 to 14 JAN 2010

(GRAYM.GRAYM2) 09183

GRAYM TWO ARRIVAL

ST-626 (FAA)

BEDFORD, MASSACHUSETTS



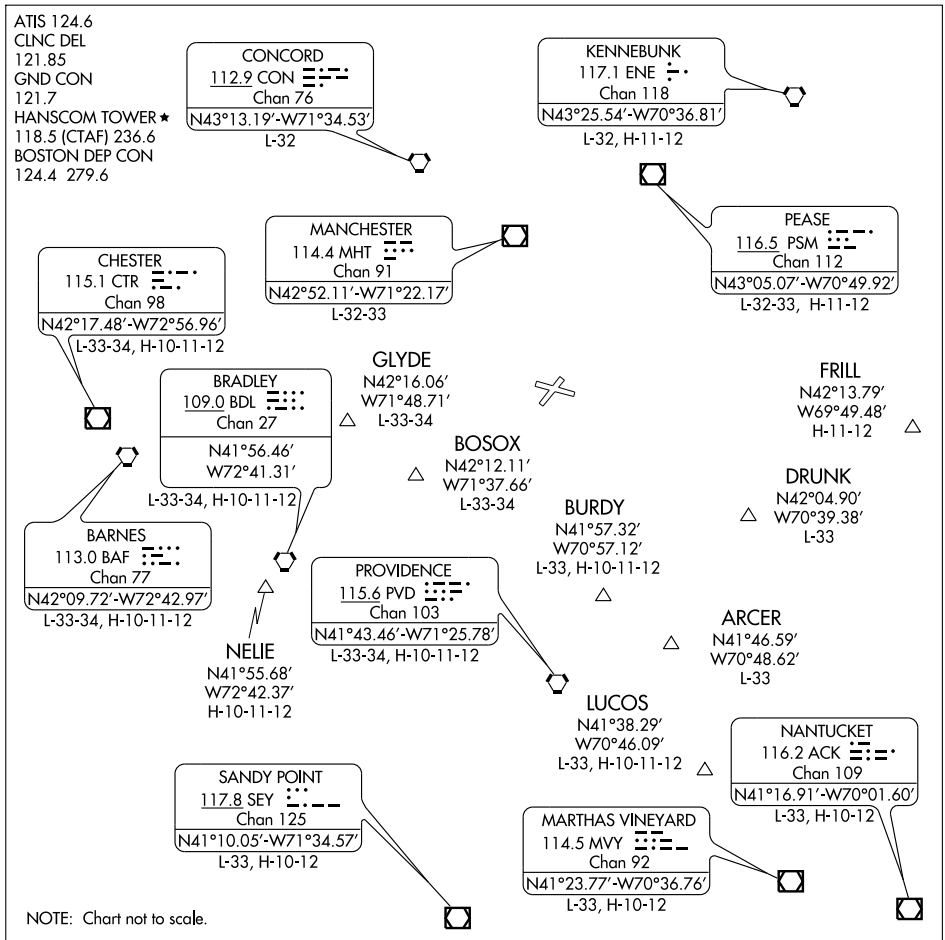
HARTFORD TRANSITION (HFD.GRAYM2): From over HFD VOR/DME via HFD R-053 to GRAYM INT. Thence. . . .

NORWICH TRANSITION (ORW.GRAYM2): From over ORW VOR/DME via ORW R-011 to GRAYM INT. Thence. . . .

. . . . From over GRAYM INT via HFD VOR/DME R-053 to DREEM INT, then direct destination airport. Expect radar vectors to final approach course.

NE-1, 17 DEC 2009 to 14 JAN 2010

HANSCOM SIX DEPARTURE



DEPARTURE ROUTE DESCRIPTION

All aircraft expect radar vectors to appropriate depicted NAVAID/fix. Maintain 2000′. Expect further clearance to filed altitude/flight level ten minutes after departure.

TAKE-OFF ALL RUNWAYS: Heading as assigned by ATC for vectors to assigned NAVAID/fix.

LOC/DME I-BED	APP CRS	Rwy ldg 7001
111.15	113°	TDZE 133
Chan 48 (Y)		Apt Elev 133

ILS or LOC RWY 11

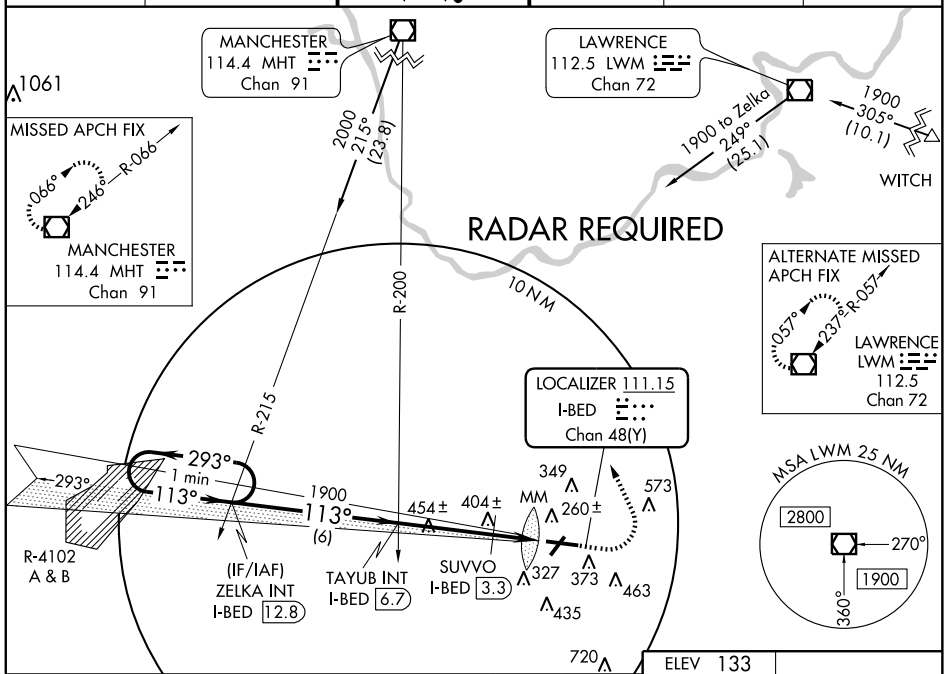
BEDFORD/LAURENCE G. HANSCOM FIELD (BED)

If local altimeter setting not received, use Boston altimeter setting and increase all DAs/MDAs 60 feet. Inoperative table does not apply to S-ILS 11 all Cats and S-LOC 11 Cats A and B. Visibility reduction by helicopters NA.

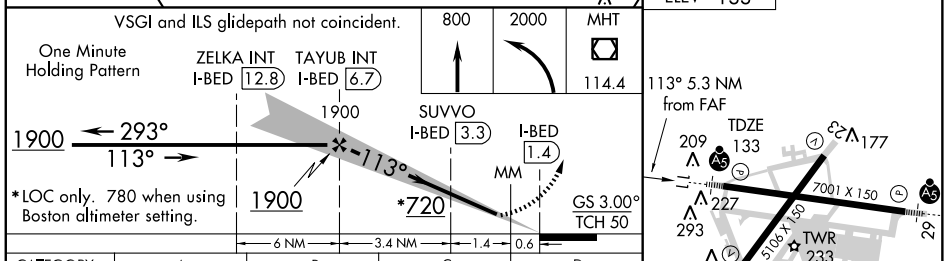
MALSR

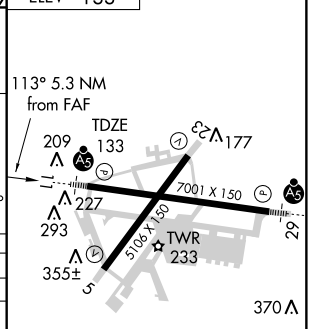
MISSED APPROACH: Climb to 800, then climbing left turn to 2000 direct MHT VOR/DME and hold.

ATIS	BOSTON APP CON	HANSCOM TOWER ★	GND CON	CLNC DEL	UNICOM
124.6	124.4 279.6	118.5 (CTAF) L 236.6	121.7	121.85	122.95



ELEV 133





CATEGORY	A	B	C	D
S-ILS 11	383/50	250 (300-1)		
S-LOC 11	720/50	587 (600-1)		720/60 587 (600-1¼)
CIRCLING	720 - 1	587 (600-1)	720 - 1½ 587 (600-1½)	780 - 2 647 (700-2)
	SUVVO FIX MINIMUMS			
S-LOC 11	660/50	527 (600-1)		660/60 527 (600-1¼)
CIRCLING	680 - 1	547 (600-1)	700 - 1½ 567 (600-1½)	780 - 2 647 (700-2)

MIRL Rwy 5-23 L
HIRL Rwy 11-29 L
REIL Rwys 5 and 23

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-ULJ	APP CRS	Rwy ldg	7001
111.15	293°	TDZE	128
Chan 48(Y)		Apt Elev	133

ILS or LOC RWY 29

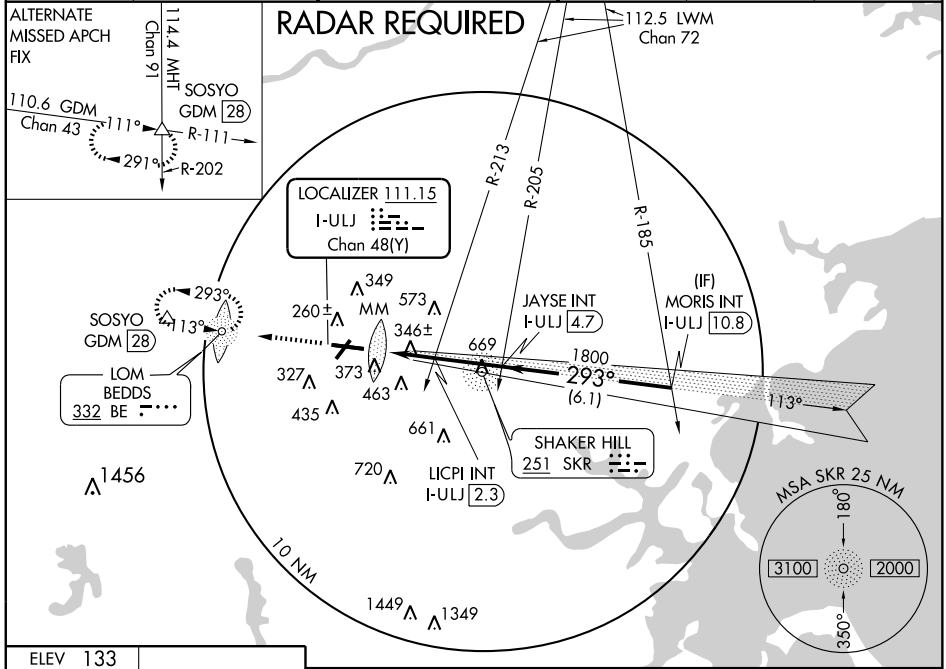
BEDFORD/LAURENCE G. HANSCOM FIELD (BED)

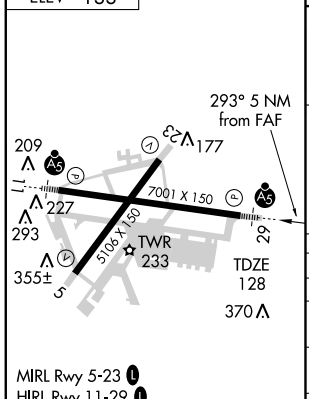
ADF required. VDP NA when using Boston altimeter setting. If local altimeter setting not received, use Boston altimeter setting and increase all DAs to 377 feet and all MDAs 60 feet.

MALSR

MISSED APPROACH: Climb to 2000 direct BE LOM and hold.

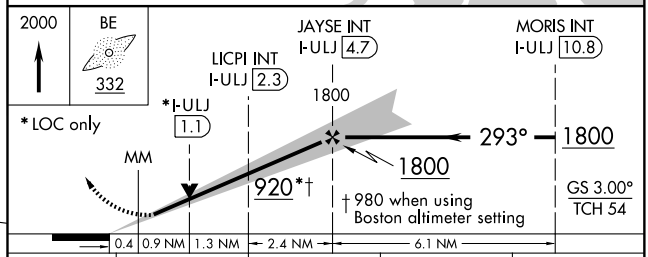
ATIS	BOSTON APP CON	HANSCOM TOWER ★	GND CON	CLNC DEL	UNICOM
124.6	124.4 279.6	118.5 (CTAF) L 236.6	121.7	121.85	122.95





MIRL Rwy 5-23 L
HIRL Rwy 11-29 L
REIL Rwys 5 and 23

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32



CATEGORY	A	B	C	D
S-ILS 29	328-½ 200 (200-½)			
S-LOC 29	920-½ 792 (800-½)	920-¾ 792 (800-¾)	920-1¾ 792 (800-1¾)	920-2 792 (800-2)
CIRCLING	920-1 787 (800-1)	920-1¼ 787 (800-1¼)	920-2¼ 787 (800-2¼)	920-2½ 787 (800-2½)
LICPI FIX MINIMUMS				
S-LOC 29	600-½ 472 (500-½)		600-¾ 472 (500-¾)	600-1 472 (500-1)
CIRCLING	680-1 547 (600-1)		700-1½ 567 (700-1½)	780-2 647 (700-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

NDB SKR	APP CRS	Rwy ldg	7001
251	297°	TDZE	128
		Apt Elev	133

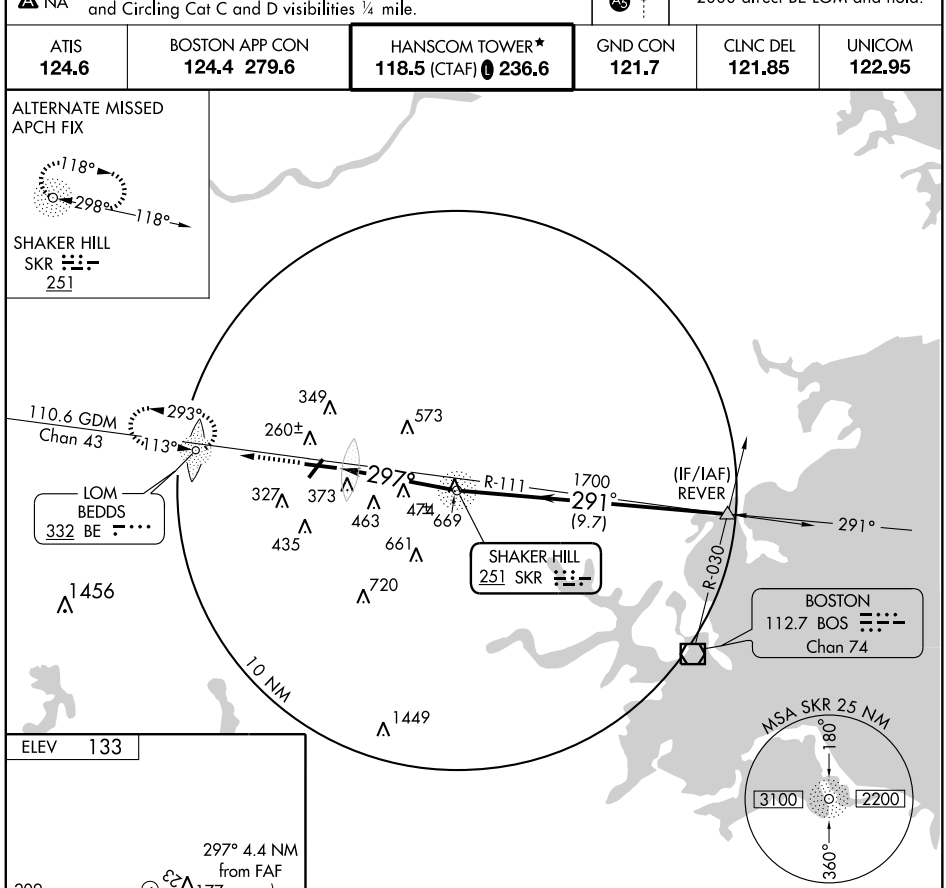
NDB RWY 29

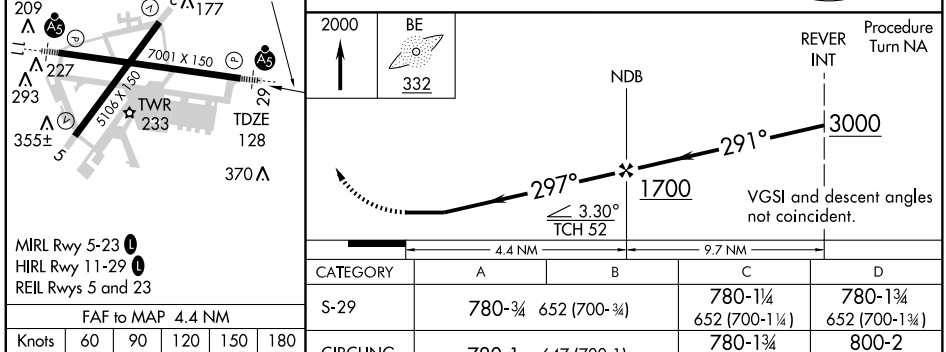
BEDFORD/ LAURENCE G. HANSCOM FIELD (BED)

NA — When local altimeter setting not received, use Boston altimeter setting and increase all MDA 60 feet; increase S-29 Cat C and D and Circling Cat C and D visibilities ¼ mile.

MALSR — MISSED APPROACH: Climb to 2000 direct BE LOM and hold.

ATIS	BOSTON APP CON	HANSCOM TOWER★	GND CON	CLNC DEL	UNICOM
124.6	124.4 279.6	118.5 (CTAF) L 236.6	121.7	121.85	122.95





FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

CATEGORY	A	B	C	D
S-29	780-¾ 652 (700-¾)		780-1¼ 652 (700-1¼)	780-1¾ 652 (700-1¾)
CIRCLING	780-1 647 (700-1)		780-1¾ 647 (700-1¾)	800-2 667 (700-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS CH 87000 W11A	APP CRS 113°	Rwy ldg 7001 TDZE 133 Apt Elev 133

RNAV (GPS) RWY 11

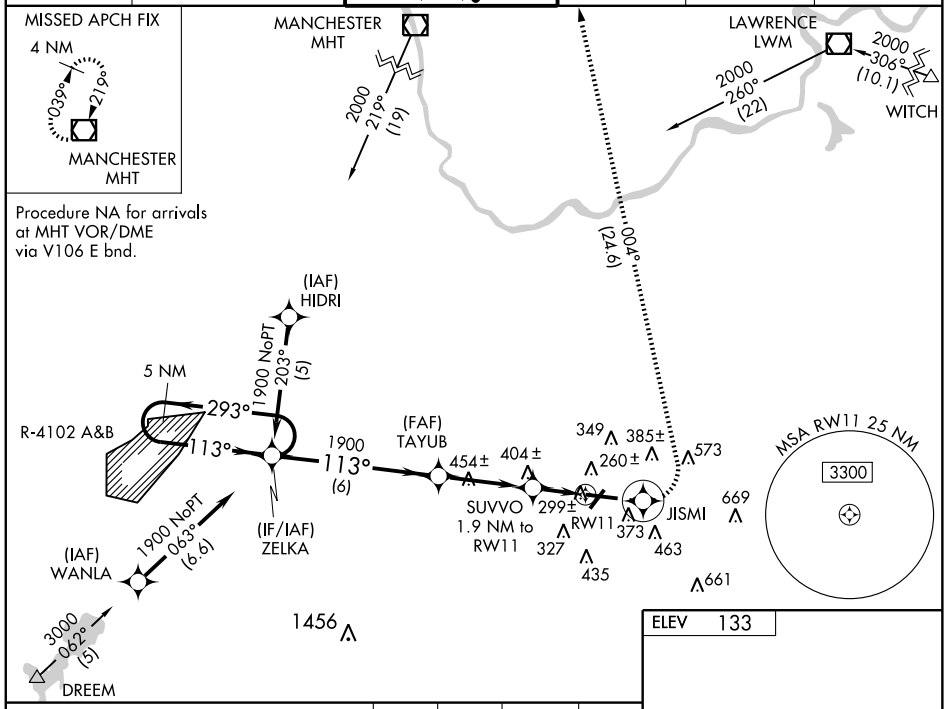
BEDFORD / LAURENCE G. HANSCOM FIELD (BED)

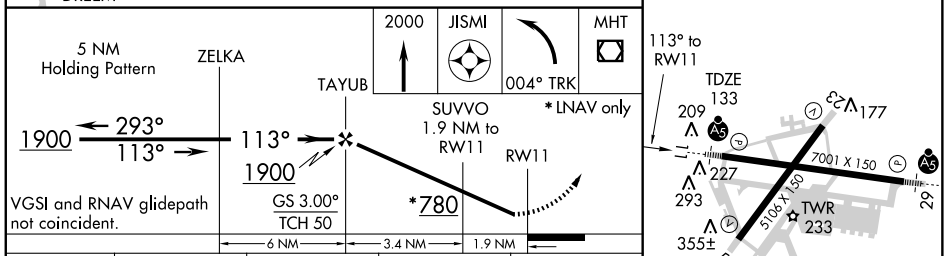
If local altimeter setting not received, use Boston altimeter setting and increase all DAs/MDAs 60 feet. For uncompensated Baro-VNAV systems, LNAV-VNAV NA below -15°C (5°F) or above 48°C (119°F). For inoperative MALSR, increase LPV all Cats visibility to RVR 6000. Inoperative table does not apply to LNAV Cats A and B. Baro-VNAV NA when using Boston altimeter setting. Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

MALSR

MISSED APPROACH: Climb to 2000 direct JISMI and left turn via 004° track to MHT VOR/DME and hold.

ATIS	BOSTON APP CON	HANSCOM TOWER ★	GND CON	CLNC DEL	UNICOM
124.6	124.4 279.6	118.5 (CTAF) L 236.6	121.7	121.85	122.95





CATEGORY	A	B	C	D
LPV DA	479/50 346 (400-1)			
LNAV/VNAV DA	576/50 443 (500-1)			
LNAV MDA	660/50 527 (600-1)			660/60 527 (600-1¼)
CIRCLING	680-1 547 (600-1)		700 - 1½ 567 (600-1½)	780 - 2 647 (700-2)

MIRL Rwy 5-23 L
HIRL Rwy 11-29 L
REIL Rwys 5 and 23

APP CRS	Rwy ldg	5106
233°	TDZE	129
	Apt Elev	133

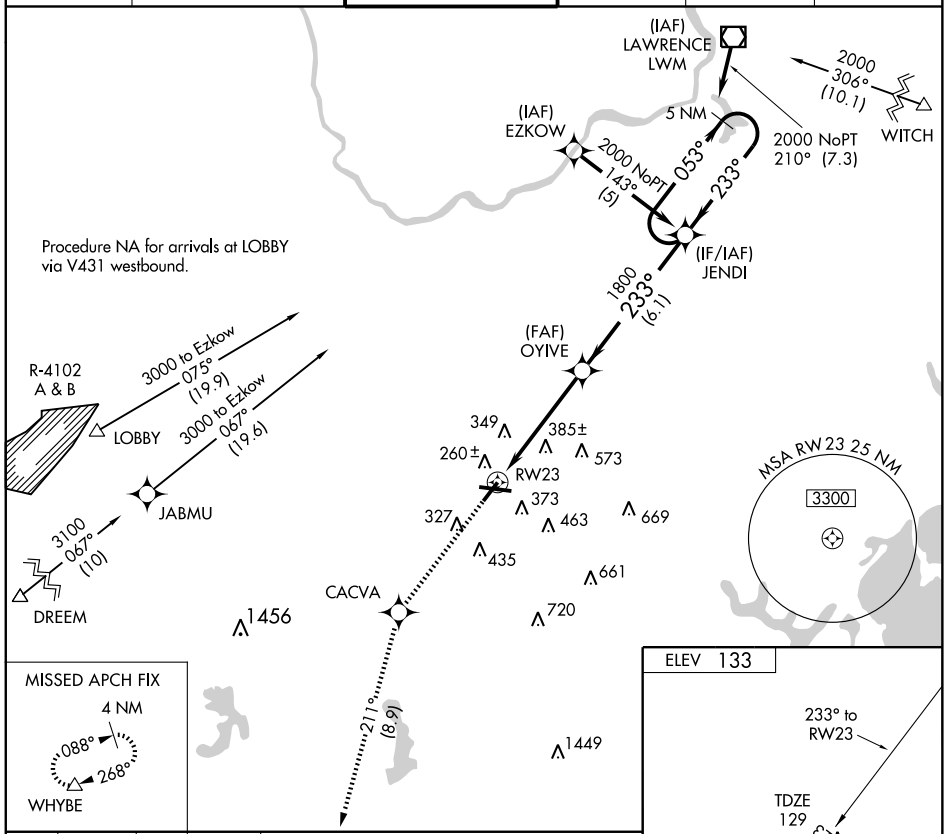
RNAV (GPS) RWY 23

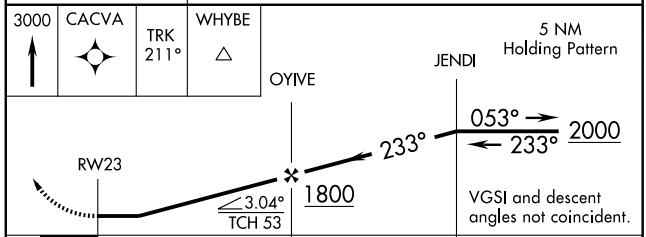
BEDFORD / LAURENCE G. HANSCOM FIELD (BED)

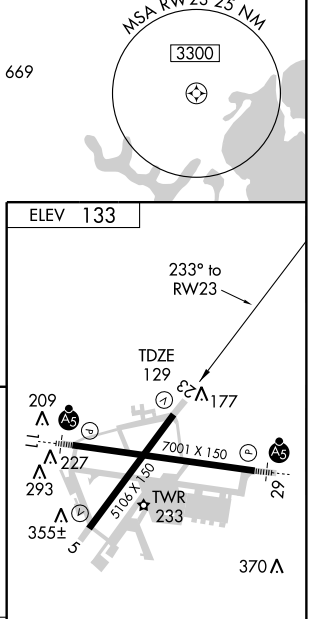
DME/DME RNP-0.3 NA.
If local altimeter setting not received, use Boston altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climb to 3000 direct CACVA and via 211° track to WHYBE and hold.

ATIS	BOSTON APP CON	HANSCOM TOWER ★	GND CON	CLNC DEL	UNICOM
124.6	124.4 279.6	118.5 (CTAF) L 236.6	121.7	121.85	122.95







CATEGORY	A	B	C	D
LNAV MDA	640-1	511 (600-1)	640-1½	511 (600-1½)
CIRCLING	680-1	547 (600-1)	700-1½ 567 (600-1½)	780-2 647 (700-2)

MIRL Rwy 5-23 L
HIRL Rwy 11-29 L
REIL Rwys 5 and 23

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS CH 86612 W29A	APP CRS 293°	Rwy ldg 7001 TDZE 128 Apt Elev 133

RNAV (GPS) RWY 29

BEDFORD/LAURENCE G. HANSCOM FIELD (BED)

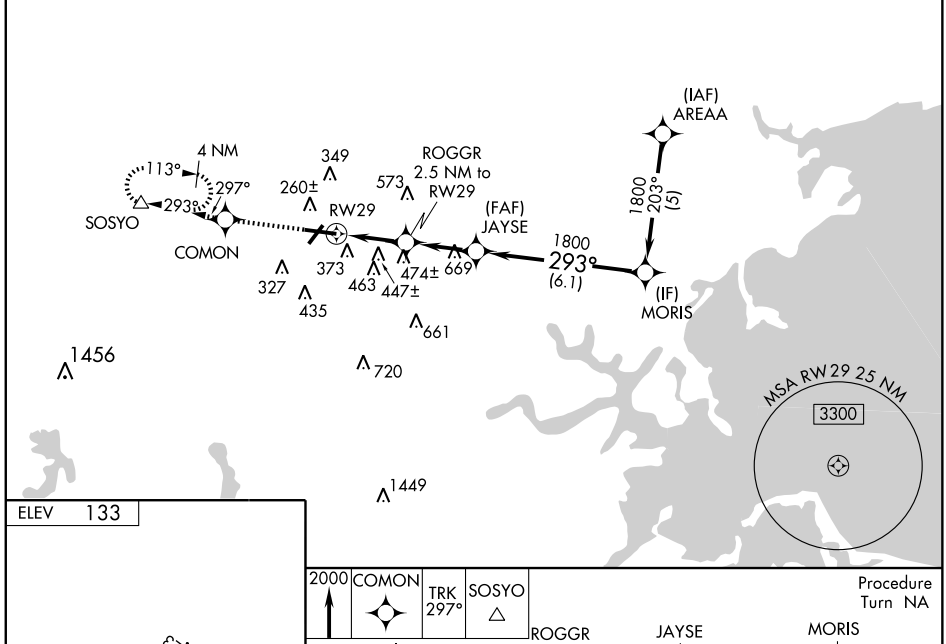
Baro-VNAV NA when using Boston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Boston altimeter setting and increase all DA 48 ft and all MDA 60 ft; increase LNAV/VNAV all Cats, LNAV Cat C and D and Circling Cat C and D visibilities ¼ mile. VDP NA when using Boston altimeter setting.

MALSR

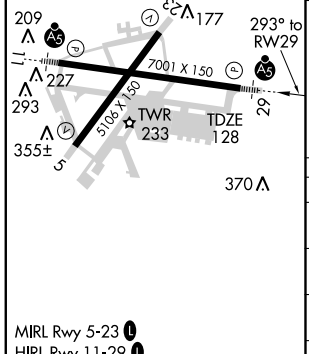
MISSED APPROACH: Climb to 2000 direct COMON and via 297° track to SOSYO and hold.

ATIS	BOSTON APP CON	HANSCOM TOWER*	GND CON	CLNC DEL	UNICOM
124.6	124.4 279.6	118.5 (CTAF) L 236.6	121.7	121.85	122.95

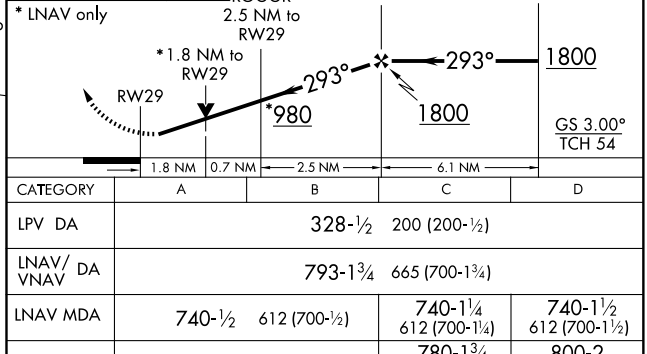
RADAR REQUIRED



ELEV 133



MIRL Rwy 5-23 L
HIRL Rwy 11-29 L
REIL Rwys 5 and 23



CATEGORY	A	B	C	D
LPV DA	328-½ 200 (200-½)			
LNAV/VNAV DA	793-1¾ 665 (700-1¾)			
LNAV MDA	740-½ 612 (700-½)		740-1¼ 612 (700-1¼)	740-1½ 612 (700-1½)
CIRCLING	740-1 607 (700-1)		780-1¾ 647 (700-1¾)	800-2 667 (700-2)

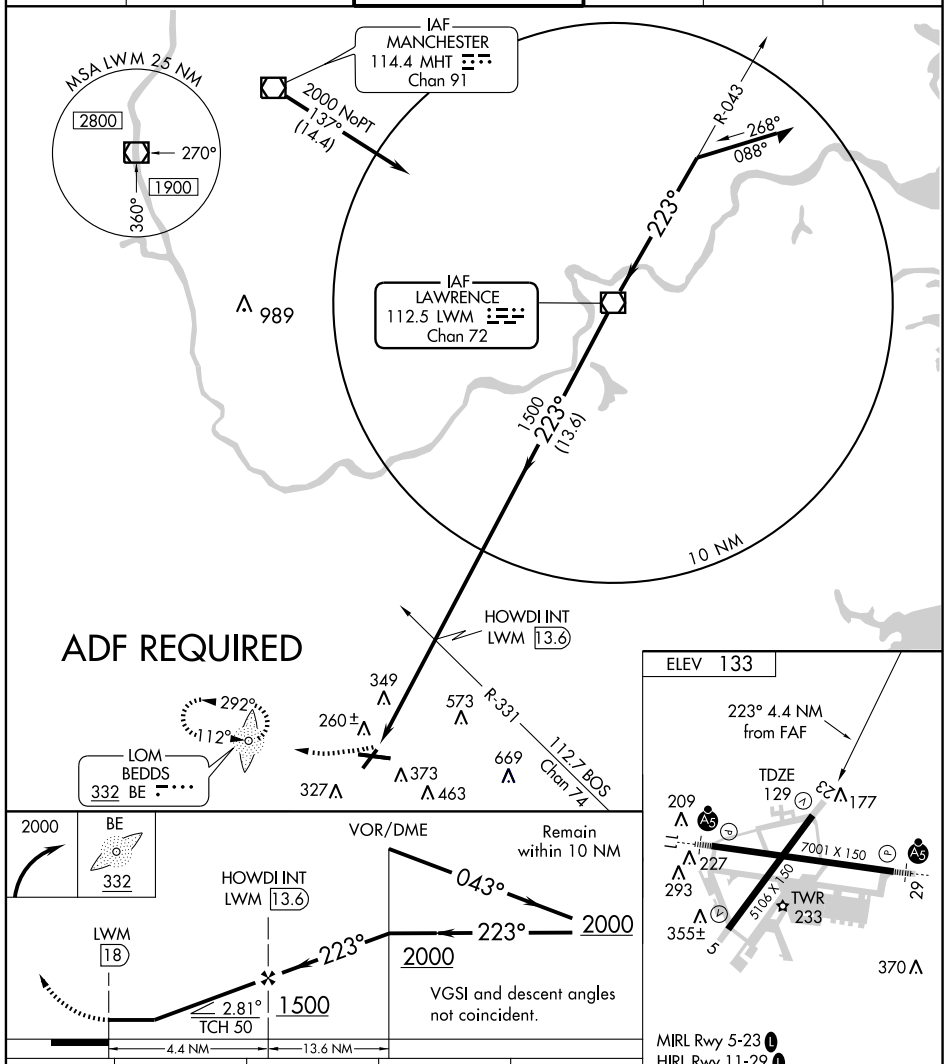
VOR/DME LWM 112.5 Chan 72	APP CRS 223°	Rwy ldg 5106 TDZE 129 Apt Elev 133

VOR RWY 23

BEDFORD/LAURENCE G. HANSCOM FIELD (BED)

MISSED APPROACH: Climbing right turn to 2000 direct BE LOM and hold.

ATIS	BOSTON APP CON	HANSCOM TOWER★	GND CON	CLNC DEL	UNICOM
124.6	124.4 279.6	118.5 (CTAF) L 236.6	121.7	121.85	122.95



CATEGORY	A	B	C	D
S-23	680-1 551 (600-1)		680-1½ 551 (600-1½)	680-1¾ 551 (600-1¾)
CIRCLING	700-1 567 (600-1)	720-1 587 (600-1)	720-1½ 587 (600-1½)	780-2 647 (700-2)

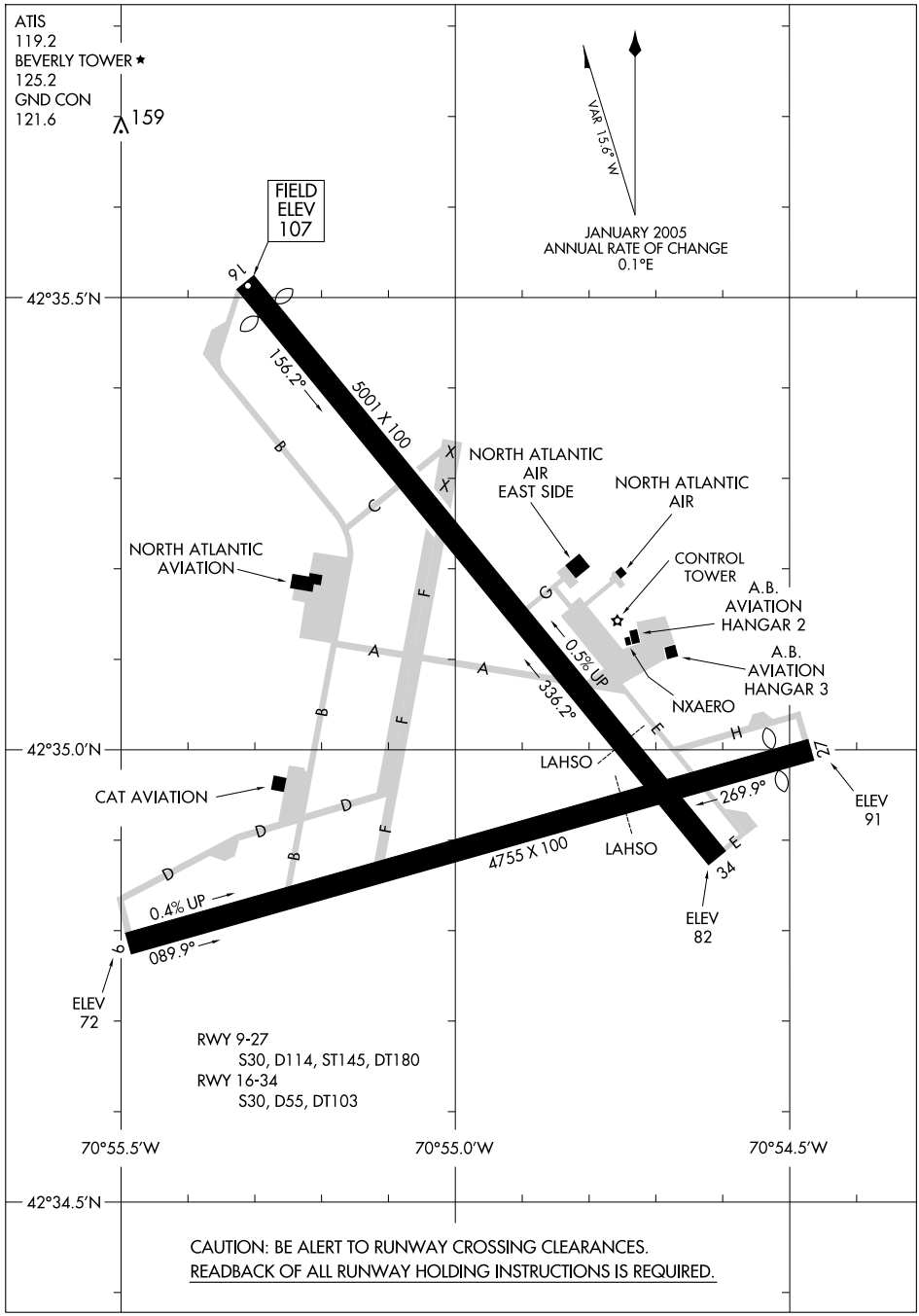
FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

NE-1. 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

AL-5039 (FAA)

BEVERLY MUNI (BVY)
BEVERLY, MASSACHUSETTS



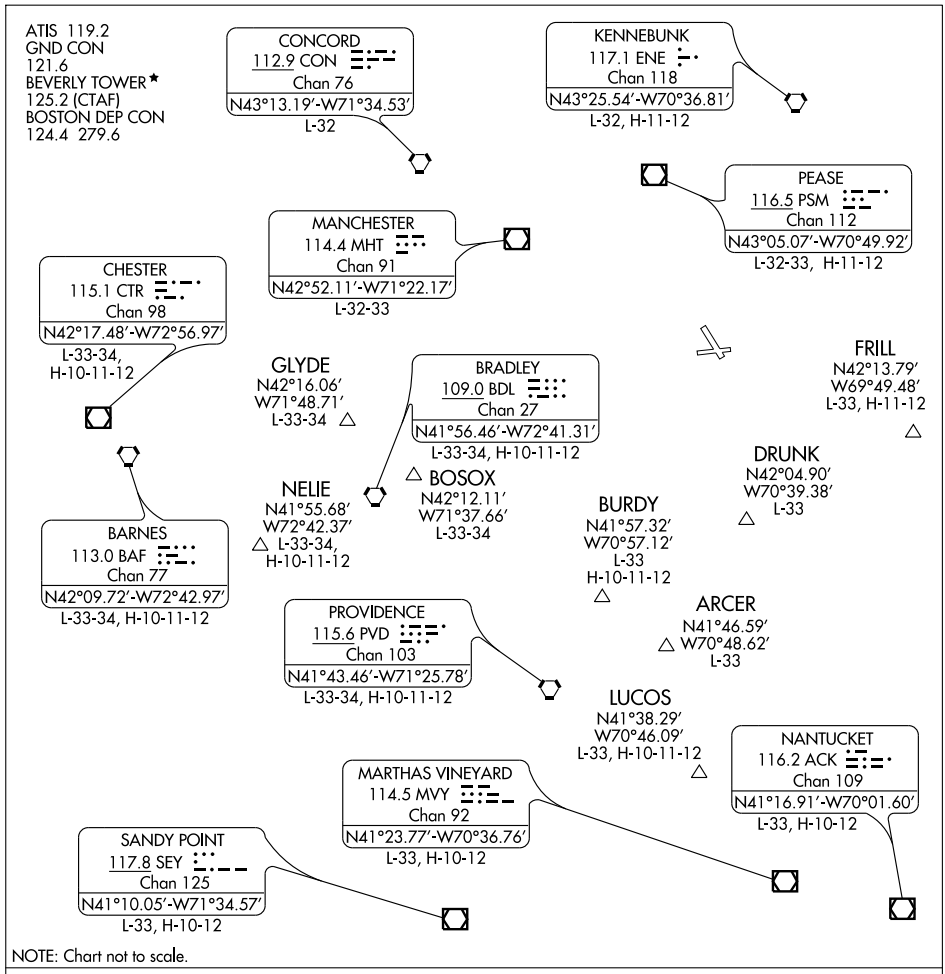
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NE-1, 17 DEC 2009 to 14 JAN 2010

BEVERLY SIX DEPARTURE

AL-5039 (FAA)

BEVERLY MUNI (BVY)
BEVERLY, MASSACHUSETTS



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

All aircraft expect radar vectors to appropriate depicted NAVAID/fix. Maintain 2000′. Expect further clearance to filed altitude/flight level ten minutes after departure.

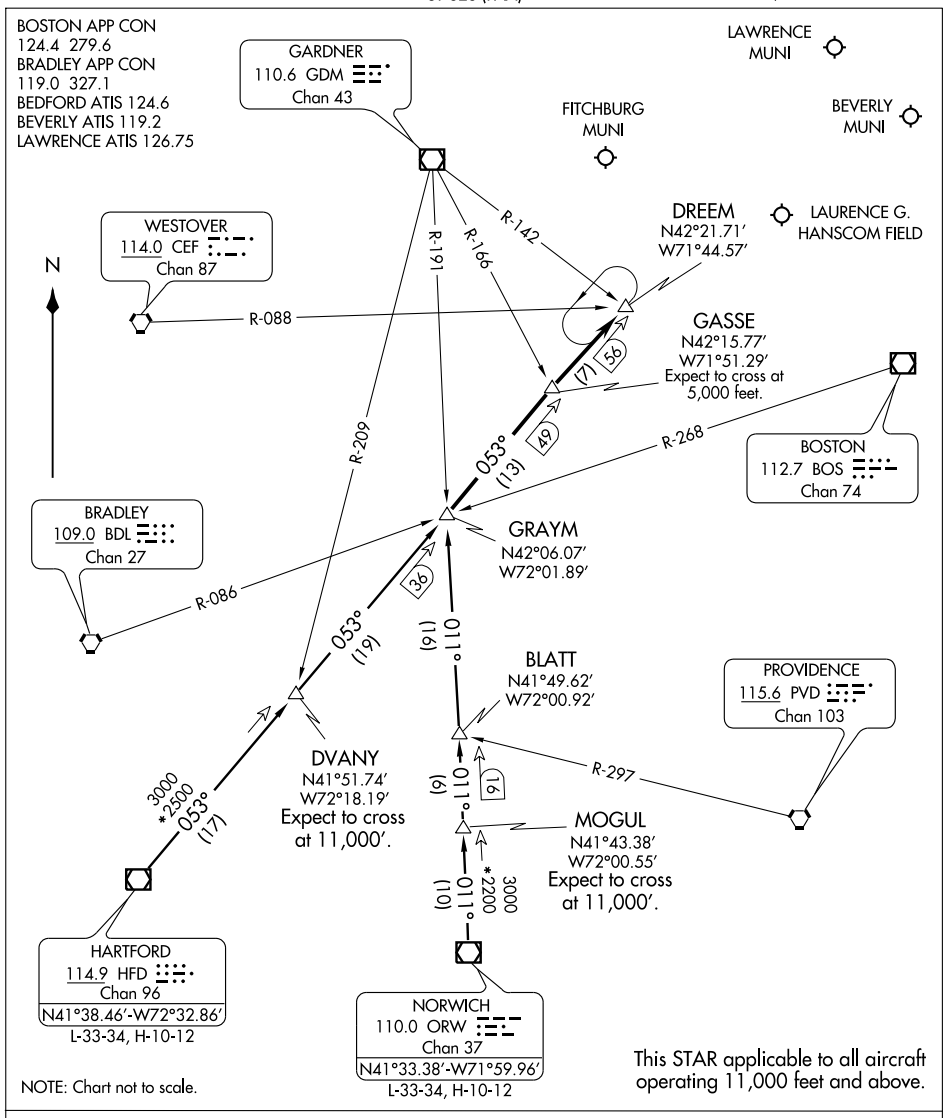
TAKE-OFF ALL RUNWAYS: Heading as assigned by ATC for vectors to assigned NAVAID/fix.

(GRAYM.GRAYM2) 09183

GRAYM TWO ARRIVAL

ST-626 (FAA)

BEDFORD, MASSACHUSETTS



HARTFORD TRANSITION (HFD.GRAYM2): From over HFD VOR/DME via HFD R-053 to GRAYM INT. Thence. . . .

NORWICH TRANSITION (ORW.GRAYM2): From over ORW VOR/DME via ORW R-011 to GRAYM INT. Thence. . . .

. . . . From over GRAYM INT via HFD VOR/DME R-053 to DREEM INT, then direct destination airport. Expect radar vectors to final approach course.

NE-1, 17 DEC 2009 to 14 JAN 2010

LOC/DME I-BVY	APP CRS	Rwy ldg	4762
110.5	157°	TDZE	107
Chan 42		Apt Elev	107

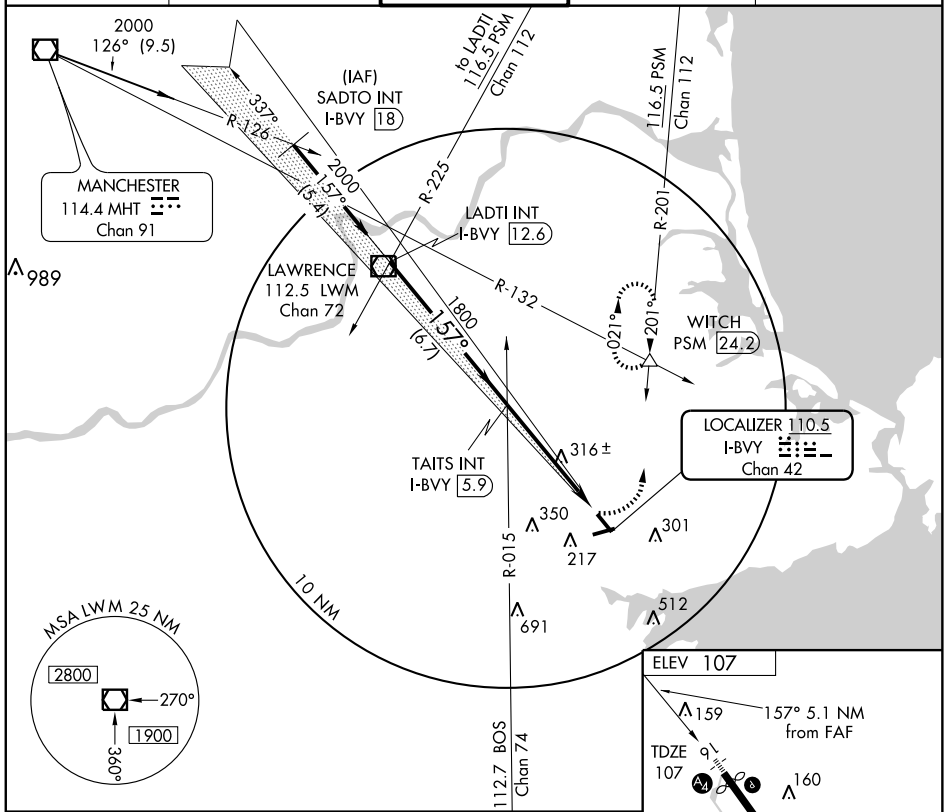
LOC RWY 16
BEVERLY MUNI (BVY)

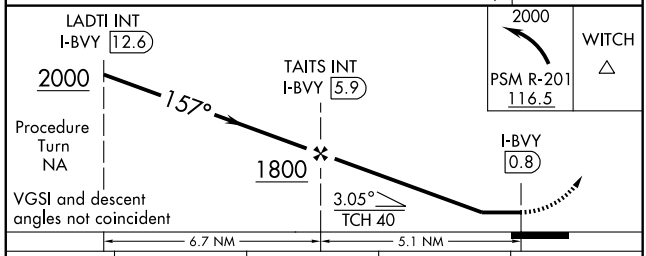
Inoperative table does not apply.

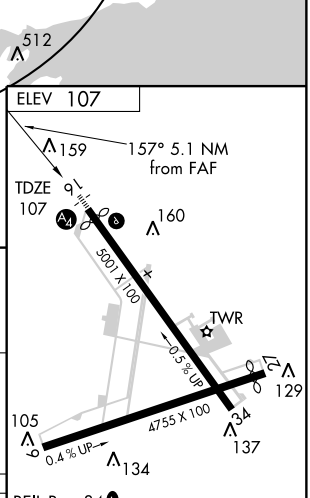
MALSF

MISSED APPROACH: Climbing left turn to 2000 via PSM R-201 to WITCH Int/24.2 DME and hold.

ATIS	BOSTON APP CON	BEVERLY TOWER ★	GND CON	UNICOM
119.2	124.4 279.6	125.2 (CTAF) L	121.6	122.95







REIL Rwy 34 L

MIRL Rwy 16-34 and 9-27 L

CATEGORY	A	B	C	D
S-16	580-1 473 (500-1)		580-1¼ 473 (500-1¼)	580-1½ 473 (500-1½)
CIRCLING	620-1 513 (600-1)		620-1½ 513 (600-1½)	700-2 593 (600-2)

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	4762
157°	TDZE	107
	Apt Elev	107

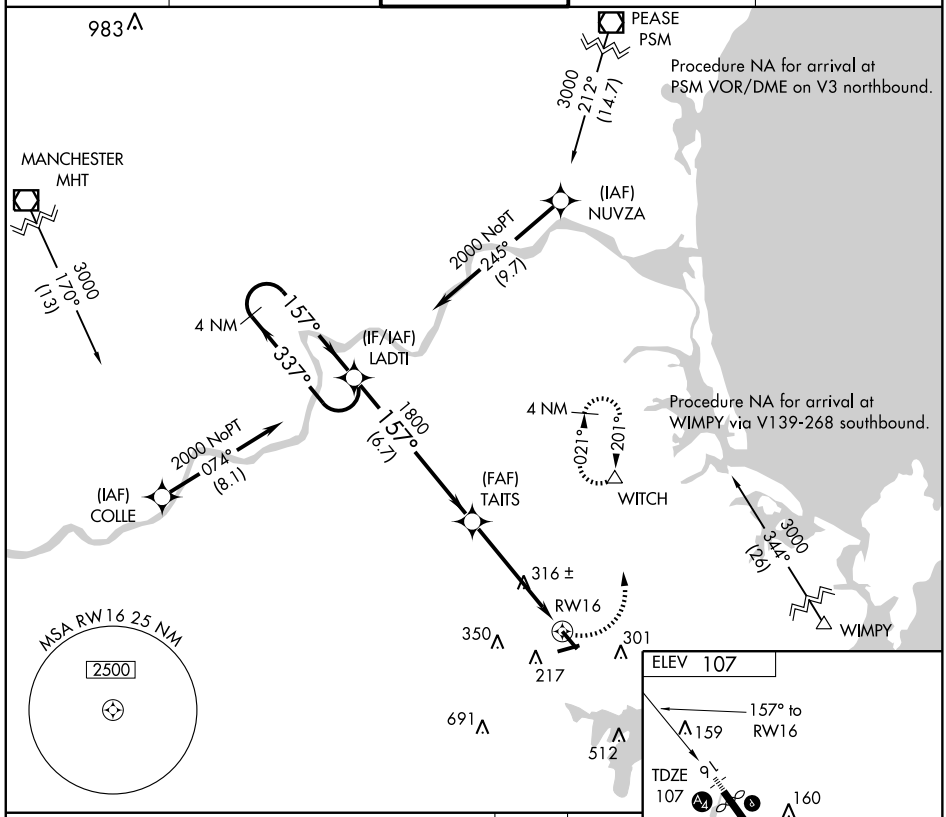
RNAV (GPS) RWY 16
BEVERLY MUNI (BVY)

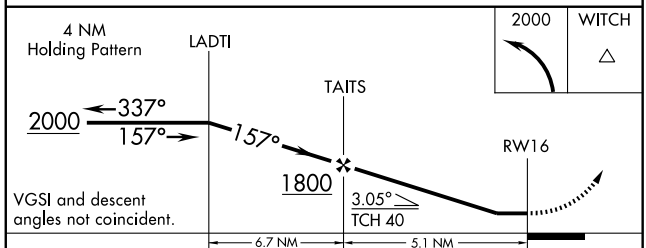
DME/DME RNP-0.3 NA.
Inoperative table does not apply.

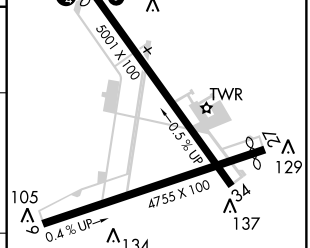
MALSF

MISSED APPROACH: Climbing left turn to 2000 direct WITCH and hold.

ATIS	BOSTON APP CON	BEVERLY TOWER★	GND CON	UNICOM
119.2	124.4 279.6	125.2 (CTAF) L	121.6	122.95







REIL Rwy 34 L
MIRL Rwy 16-34 and 9-27 L

CATEGORY	A	B	C	D
LNAV MDA	580-1 473 (500-1)		580-1¼ 473 (500-1¼)	580-1½ 473 (500-1½)
CIRCLING	600-1 493 (500-1)		620-1½ 513 (600-1½)	700-2 593 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

VOR/DME LWM	APP CRS	Rwy ldg	4762
112.5	154°	TDZE	107
Chan 72		Apt Elev	107

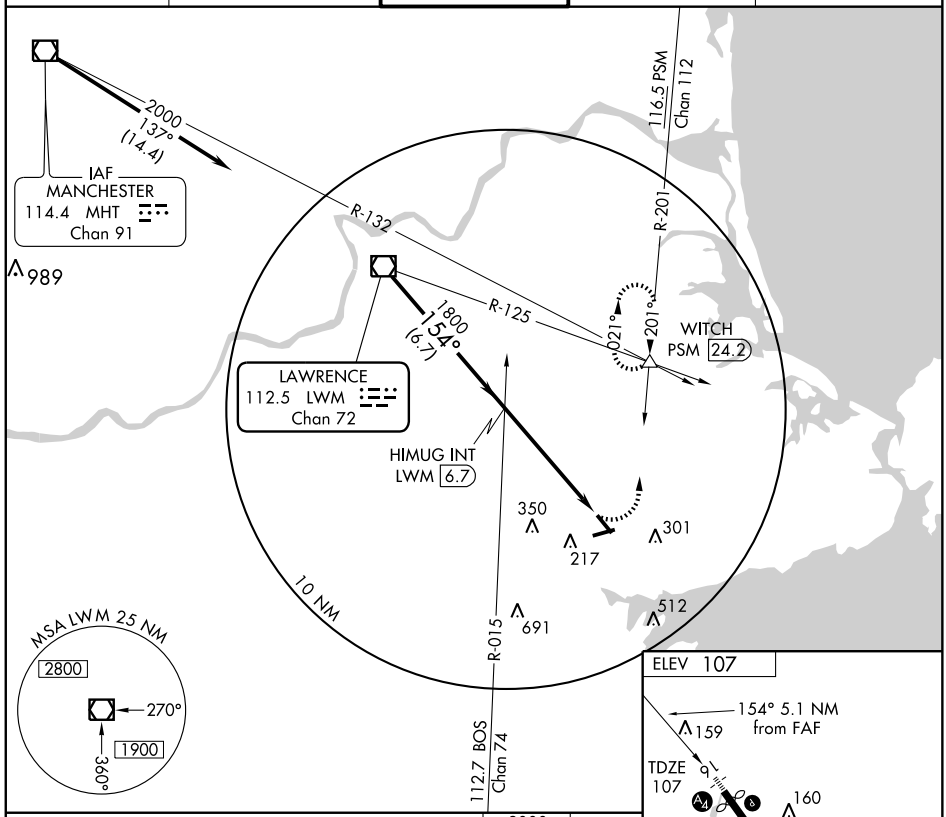
VOR RWY 16
BEVERLY MUNI (BVY)

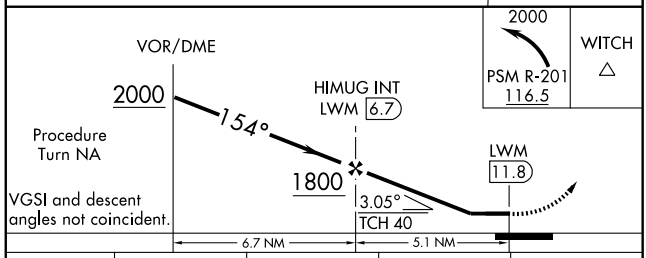
Inoperative table does not apply.

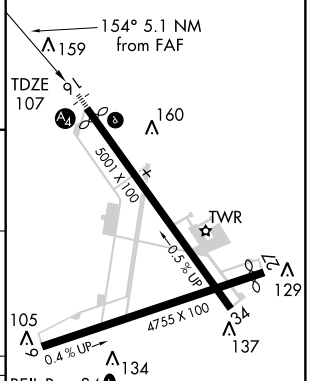
MALSF

MISSED APPROACH: Climbing left turn to 2000 via PSM R-201 to WITCH Int/24.2 DME and hold.

ATIS	BOSTON APP CON	BEVERLY TOWER*	GND CON	UNICOM
119.2	124.4 279.6	125.2 (CTAF) L	121.6	122.95







REIL Rwy 34 L

MIRL Rwy 16-34 and 9-27 L

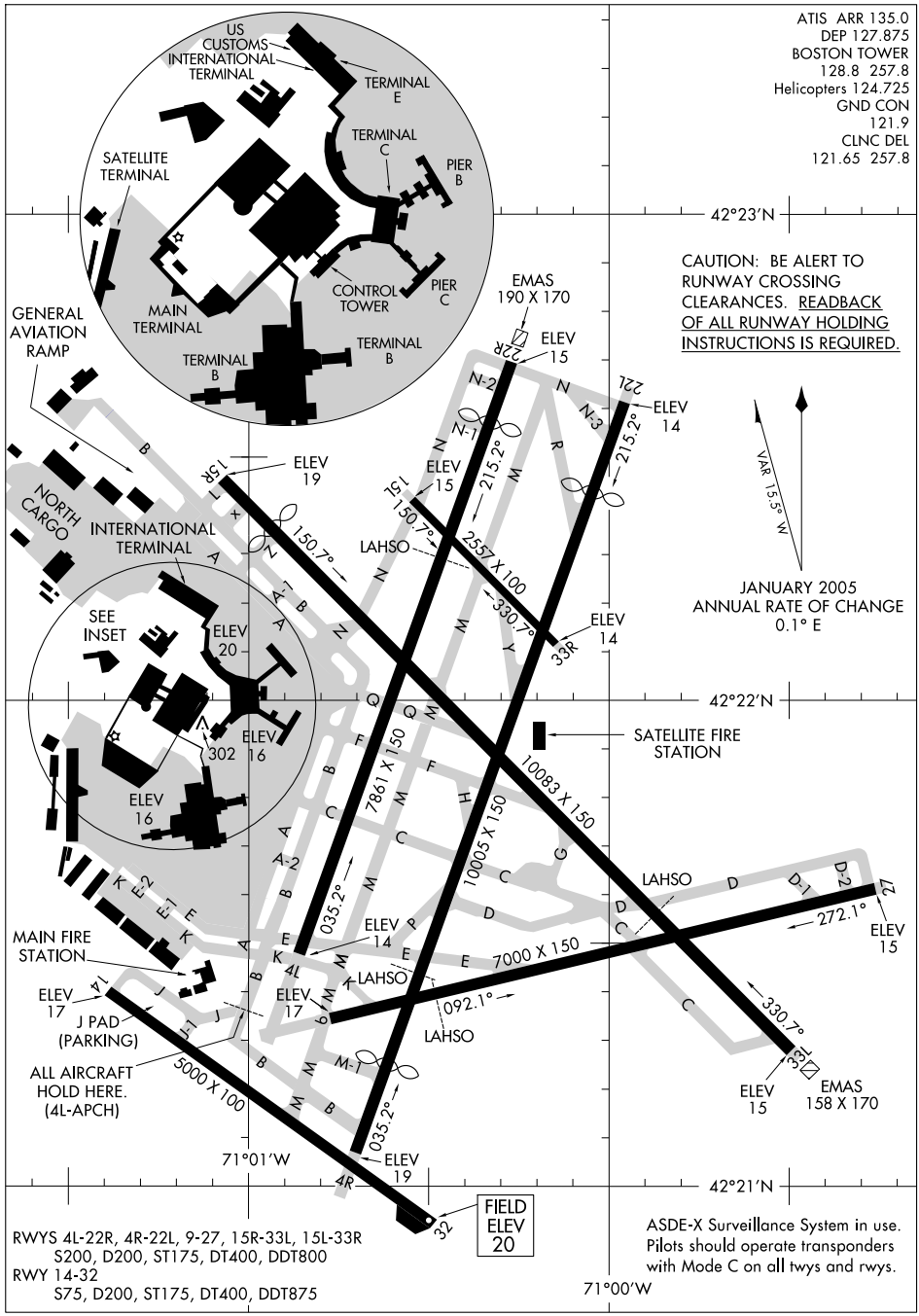
CATEGORY	A	B	C	D
S-16	720-1 613 (700-1)		720-1¾ 613 (700-1¾)	720-2 613 (700-2)
CIRCLING	720-1 613 (700-1)		720-1¾ 613 (700-1¾)	740-2 633 (700-2)

FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

NE-1. 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

BOSTON / GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)
AL-58 (FAA)
BOSTON, MASSACHUSETTS

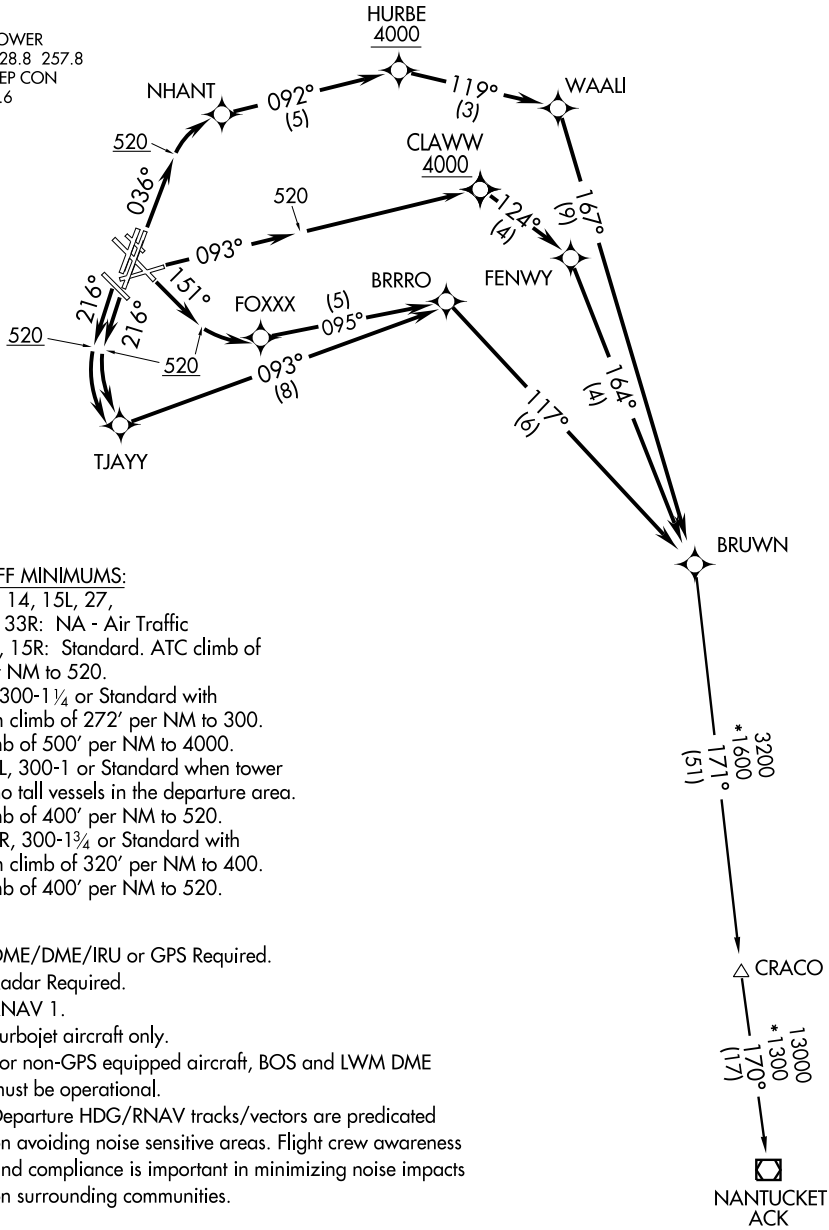


NE-1, 17 DEC 2009 to 14 JAN 2010

BRUWN ONE DEPARTURE (RNAV)

SL-58 (FAA) BOSTON, MASSACHUSETTS

ATIS DEP 127.875
CLNC DEL
121.65 257.8
GND CON
121.9
BOSTON TOWER
132.225 128.8 257.8
BOSTON DEP CON
133.0 343.6



TAKE-OFF MINIMUMS:
RWY 4L, 14, 15L, 27,
32, 33L, 33R: NA - Air Traffic
RWY 4R, 15R: Standard. ATC climb of 400′ per NM to 520.
RWY 9, 300-1¼ or Standard with minimum climb of 272′ per NM to 300. ATC climb of 500′ per NM to 4000.
RWY 22L, 300-1 or Standard when tower reports no tall vessels in the departure area. ATC climb of 400′ per NM to 520.
RWY 22R, 300-1¾ or Standard with minimum climb of 320′ per NM to 400. ATC climb of 400′ per NM to 520.

NOTE: DME/DME/IRU or GPS Required.
NOTE: Radar Required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: For non-GPS equipped aircraft, BOS and LWM DME must be operational.
NOTE: Departure HDG/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4R: Climb heading 036° to 520 MSL, then climb to assigned altitude direct NHANT, and via track 092° to HURBE, cross HURBE at or above 4000, thence...
TAKE-OFF RUNWAY 9: Climb heading 093° to 520 MSL, then climb to assigned altitude direct CLAWW, cross CLAWW at or above 4000, thence....
TAKE-OFF RUNWAY 15R: Climb heading 151° to 520 MSL, then climb to assigned altitude direct FOXXX, thence...
TAKE-OFF RUNWAYS 22L/22R: Climb heading 216° to 520 MSL, then climb to assigned altitude direct TJAYY, thence...

....via depicted route to BRUWN. Maintain 5000′ or lower assigned altitude. Expect clearance to filed altitude/flight level ten (10) minutes after departure.

NANTUCKET TRANSITION (BRUWN1.ACK):

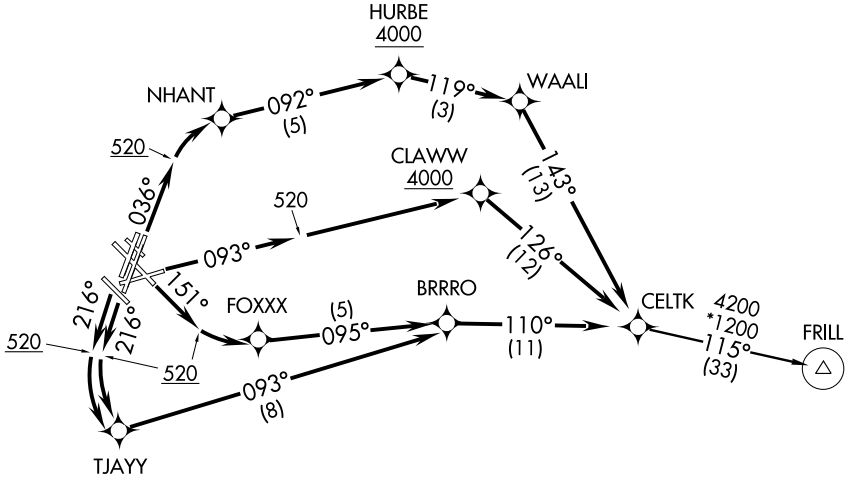
TAKE-OFF OBSTACLES:
RWY 4R: Light on pole and multiple trees beginning 1807′ from DER, 403′ left of centerline, up to 33′ AGL/79′ MSL. Ship 570′ from DER, on centerline, 50′ AGL/50′ MSL. Crane 2001′ from DER, 434′ right of centerline, 101′ AGL/114′ MSL. Mobile crane 2009′ from DER, 206′ right of centerline, 114′ AGL/134′ MSL.
RWY 9: Antenna on standpipe and tank beginning 5878′ from DER, 1429′ left of centerline, up to 138′ AGL/217′ MSL. Ship 763′ from DER, on centerline, 65′ AGL/65′ MSL.
RWY 15R: Sign 45′ from DER, 267′ right of centerline, 6′ AGL, 16′ MSL.
RWY 22L: RIG 2,441′ from DER, 35′ left of centerline, 176′ AGL/176′ MSL. Obstruction light pole 3586′ from DER, 926′ left of centerline, 108′ AGL/128′ MSL. Mobile crane 3676′ from DER, 440′ right of centerline, 122′ AGL/145′ MSL.
RWY 22R: RIG 4586′ from DER, 1535′ left of centerline, 176′ AGL/176′ MSL. RIG 4064′ from DER, 8′ right of centerline, 176′ AGL/176′ MSL. Stacks 1.3 NM from DER, 1598′ right of centerline, 255′ AGL/278′ MSL.

CELTK ONE DEPARTURE (RNAV)

SL-58 (FAA)

BOSTON, MASSACHUSETTS

ATIS DEP 127.875
CLNC DEL
121.65 257.8
GND CON
121.9
BOSTON TOWER
132.225 128.8 257.8
BOSTON DEP CON
133.0 343.6



NOTE: DME/DME/IRU or GPS Required.
NOTE: Radar Required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Rwy 4R departure, For non-GPS equipped aircraft, BOS DME must be operational.
NOTE: Rwys 9, 15R, 22L, 22R, departure, For non-GPS equipped aircraft, BOS and LWM DME must be operational.
NOTE: Departure HDG/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

TAKE-OFF MINIMUMS:
Rwys 4L, 14, 15L, 27, 32, 33L, 33R: NA - Air Traffic.
Rwy 4R, 15R: Standard.
ATC climb of 400′ per NM to 520.
Rwy 9: 300-1¼ or Standard with minimum climb of 272′ per NM to 300.
ATC climb of 500′ per NM to 4000.
Rwy 22L: 300-1 or Standard when tower reports no tall vessels in the departure area. ATC climb of 400′ per NM to 520.
Rwy 22R: 300-1¾ or Standard with minimum climb of 320′ per NM to 400.
ATC climb of 400′ per NM to 520.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4R: Climb heading 036° to 520 MSL, then climb to assigned altitude direct NHANT, and via track 092° to HURBE, cross HURBE at or above 4000, thence...
TAKE-OFF RUNWAY 9: Climb heading 093° to 520 MSL, then climb to assigned altitude direct CLAWW, cross CLAWW at or above 4000, thence....
TAKE-OFF RUNWAY 15R: Climb heading 151° to 520 MSL, then climb to assigned altitude direct FOXXX, thence...
TAKE-OFF RUNWAYS 22L/22R: Climb heading 216° to 520 MSL, then climb to assigned altitude direct TJAYY, thence...

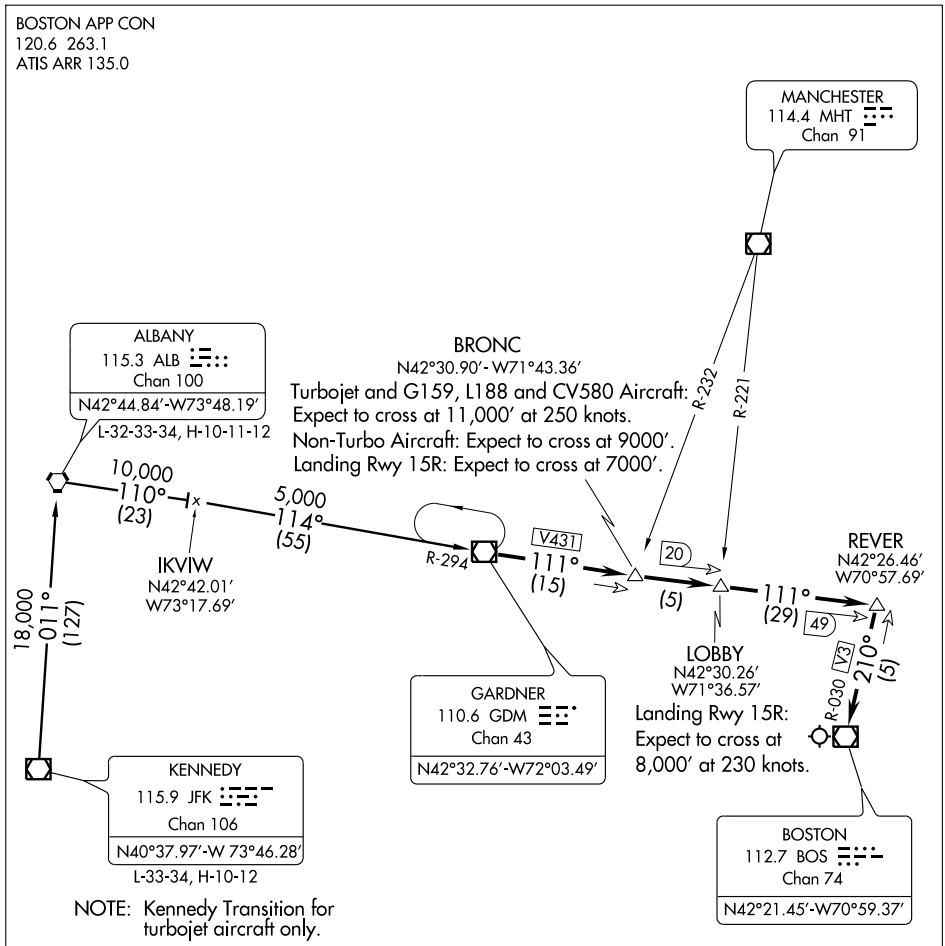
....via depicted route to CELTK. Maintain 5000′ or lower assigned altitude. Expect clearance to filed altitude/flight level ten (10) minutes after departure.

FRILL TRANSITION (CELTK1.FRILL):

TAKE-OFF OBSTACLES:
RWY 4R: Light on pole and multiple trees beginning 1807′ from DER, 403′ left of centerline, up to 33′ AGL/79′ MSL. Ship 579′ from DER, on centerline, 50′ AGL/50′ MSL. Crane 2001′ from DER, 434′ right of centerline, 101′ AGL/114′ MSL. Mobile crane 2009′ from DER, 206′ right of centerline, 114′ AGL/134 MSL.
RWY 9: Antenna on standpipe and tank beginning 5878′ from DER, 1429′ left of centerline, up to 138′ AGL/217′ MSL. Ship 763′ from DER, on centerline, 65′ AGL/65′ MSL.
RWY 15R: Sign 45′ from DER, 267′ right of centerline, 6′ AGL, 16′ MSL.
RWY 22L: RIG 2441′ from DER, 35′ left of centerline, 176′ AGL/176′ MSL. Obstruction light pole 3586′ from DER, 926′ left of centerline, 108′ AGL/128′ MSL. Mobile crane 3676′ from DER, 440′ right of centerline, 122′ AGL/145′ MSL.
RWY 22R: RIG, 4586′ from DER, 1535′ left of centerline, 176′ AGL/176′ MSL. RIG 4064′ from DER, 8′ right of centerline, 176′ AGL/176′ MSL. Stacks 1.3 NM from DER, 1598′ right of centerline, 255′ AGL/278′ MSL.

GARDNER THREE ARRIVAL ST-58 (FAA)

GENERAL EDWARD LAWRENCE LOGAN INTL
BOSTON, MASSACHUSETTS



NOTE: Chart not to scale.

ALBANY TRANSITION (ALB.GDM3): From over ALB VORTAC via ALB R-110 and GDM R-294 to GDM VOR/DME. Thence....

KENNEDY TRANSITION (JFK.GDM3): From over JFK VOR/DME via JFK R-011 to ALB VORTAC, then via ALB R-110 and GDM R-294 to GDM VOR/DME. Thence....

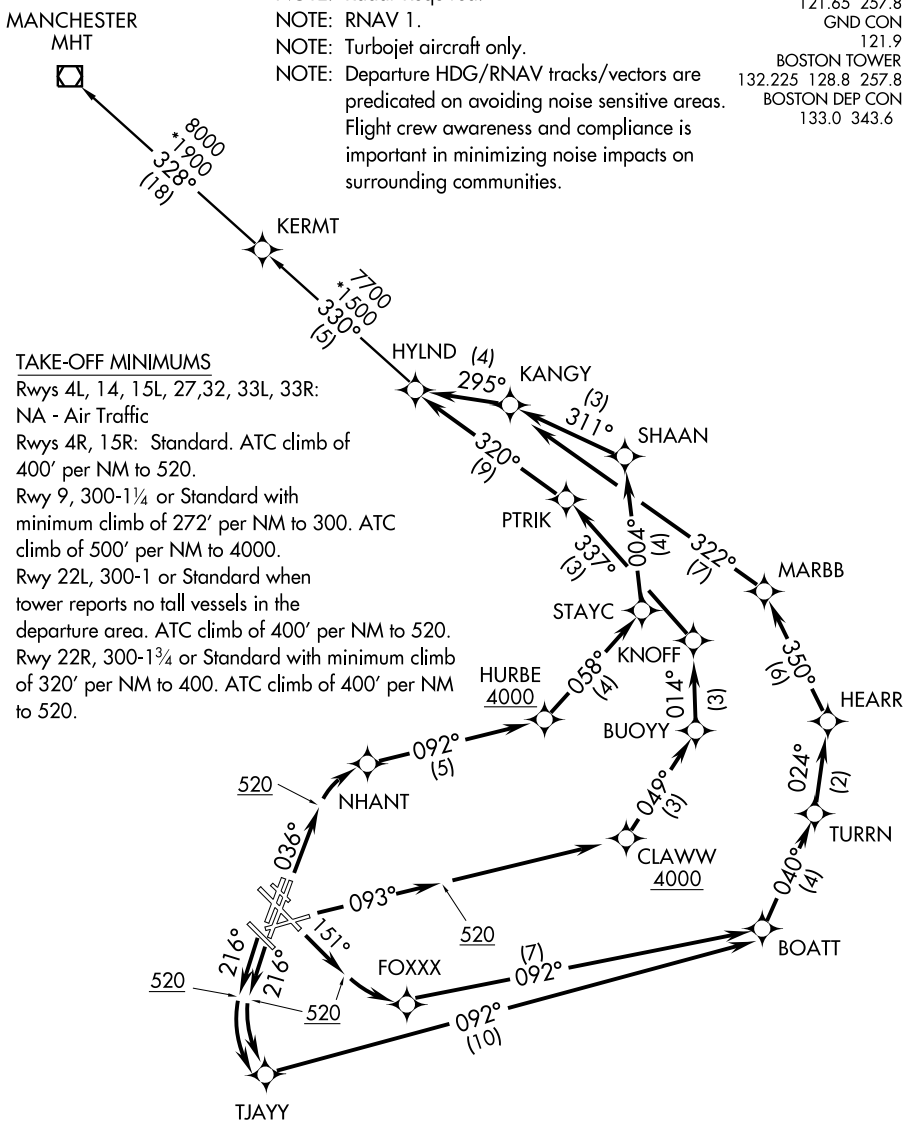
....From over GDM VOR/DME via GDM R-111 (V431) to BOS R-030 (V3) to BOS VOR/DME. Expect radar vectors to final approach course.

HYLND ONE DEPARTURE (RNAV)

SL-58 (FAA) BOSTON, MASSACHUSETTS

NOTE: DME/DME/IRU or GPS Required.
NOTE: Radar Required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Departure HDG/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

ATIS DEP 127.875
CLNC DEL
121.65 257.8
GND CON
121.9
BOSTON TOWER
132.225 128.8 257.8
BOSTON DEP CON
133.0 343.6



TAKE-OFF MINIMUMS
Rwys 4L, 14, 15L, 27,32, 33L, 33R:
NA - Air Traffic
Rwys 4R, 15R: Standard. ATC climb of 400′ per NM to 520.
Rwy 9, 300-1¼ or Standard with minimum climb of 272′ per NM to 300. ATC climb of 500′ per NM to 4000.
Rwy 22L, 300-1 or Standard when tower reports no tall vessels in the departure area. ATC climb of 400′ per NM to 520.
Rwy 22R, 300-1¾ or Standard with minimum climb of 320′ per NM to 400. ATC climb of 400′ per NM to 520.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4R: Climb heading 036° to 520 MSL, then climb to assigned altitude direct NHANT, and via track 092° to HURBE, cross HURBE at or above 4000, thence . . . .

TAKE-OFF RUNWAY 9: Climb heading 093° to 520 MSL, then climb to assigned atitude direct CLAWW, cross CLAWW at or above 4000 thence . . . .

TAKE-OFF RUNWAY 15R: Climb heading 151° to 520 MSL, then climb to assigned altitude direct FOXXX, thence . . . .

TAKE-OFF RUNWAY 22L/22R: Climb heading 216° to 520 MSL, then climb to assigned altitude direct TJAYY, thence...

. . . . via depicted route to HYLND. Maintain 5000′ or lower assigned altitude.
Expect clearance to filed altitude/flight level ten (10) minutes after departure.

MANCHESTER TRANSITION (HYLND1.MHT):

TAKE-OFF OBSTACLES NOTES

Rwy 4R: Light on pole and multiple trees beginning 1807′ from DER, 403′ left of centerline, up to 33′ AGL/79′ MSL. Ship 570′ from DER, on centerline, 50′ AGL/50′ MSL. Crane 2001′ from DER, 434′ right of centerline, 101′ AGL/114′ MSL. Mobile crane 2009′ from DER, 206′ right of centerline, 114′ AGL/134′ MSL.

Rwy 9: Antenna on standpipe and tank beginning 5878′ from DER, 1429′ left of centerline, up to 138′ AGL/217′ MSL. Ship 763′ from DER, on centerline, 65′ AGL/65′ MSL.

Rwy 15R: Sign 45′ from DER, 267′ right of centerline, 6′ AGL, 16′ MSL.

Rwy 22L: RIG 2441′ from DER, 35′ left of centerline, 176′ AGL/176′ AGL/176′ MSL. Obstruction light pole 3586′ from DER, 926′ left of centerline, 108′ AGL/128′ MSL. Mobile crane 3676′ from DER, 440′ right of centerline, 122′ AGL/145′ MSL.

Rwy 22R: RIG 4586′ from DER, 1535′ left of centerline, 176′ AGL/176′ MSL. RIG 4064′ from DER, 8′ right of centerline, 176′ AGL/176′ MSL. Stacks 1.3 NM from DER, 1598′ right of centerline, 255′ AGL/278′ MSL.

ILS or LOC RWY 4R
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

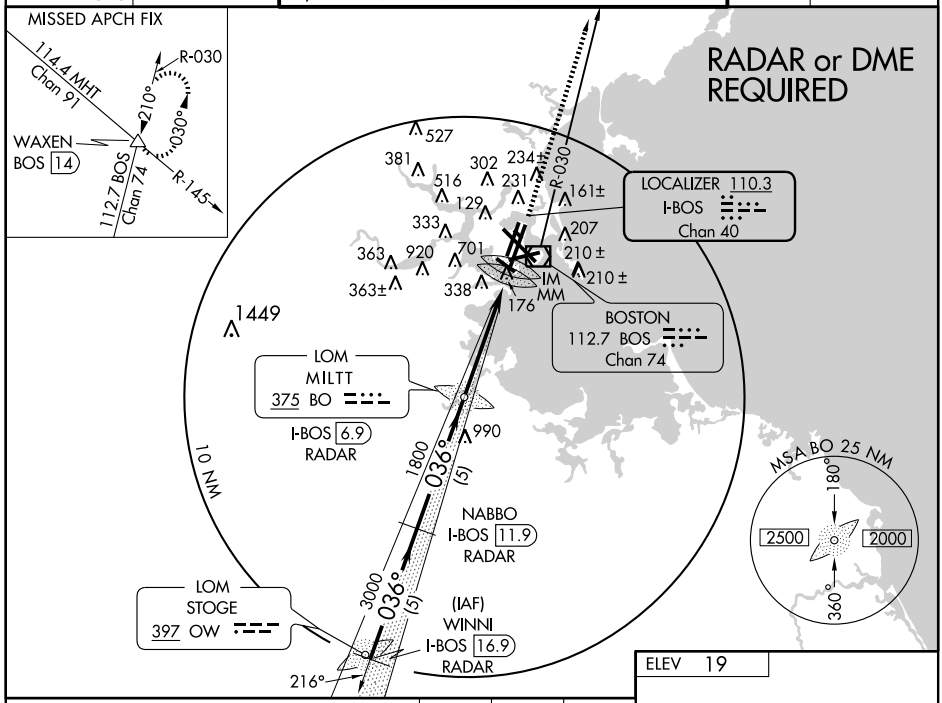
LOC/DME I-BOS	APP CRS	Rwy ldg 8851
110.3	036°	TDZE 18
Chan 40		Apt Elev 19

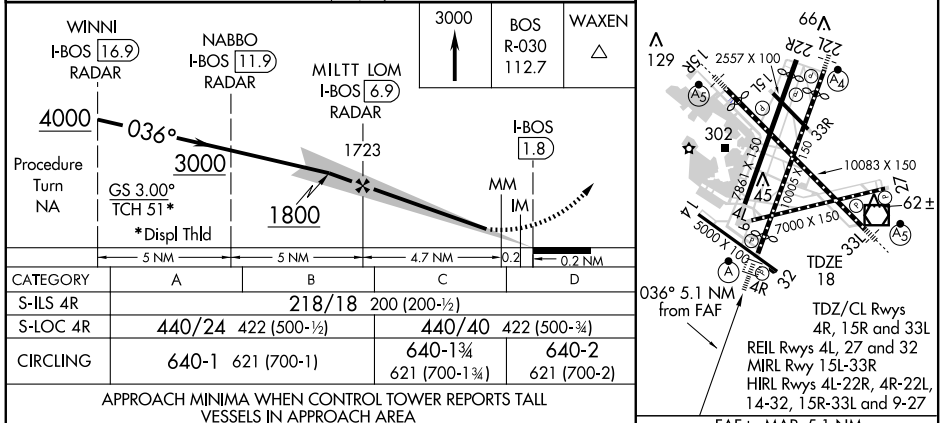
CATs C and D circling not authorized west of Rwys 4L and 15R.
** Inoperative table does not apply.

ALSF-2

MISSED APPROACH: Climb to 3000 via BOS R-030 to WAXEN INT/BOS 14 DME and hold.

ATIS	BOSTON APP CON	BOSTON TOWER	GND CON	CLNC DEL
ARR 135.0	120.6 263.1	Rwys 4R-22L, 9-27 132.225 257.8	121.9	121.65 257.8
DEP 127.875		Rwys 4L-22R, 14-32, 15R-33L, 15L-33R 128.8 257.8		





CATEGORY	A	B	C	D
S-ILS 4R	218/18 200 (200-½)			
S-LOC 4R	440/24 422 (500-½)		440/40 422 (500-¾)	
CIRCLING	640-1 621 (700-1)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

APPROACH MINIMA WHEN CONTROL TOWER REPORTS TALL VESSELS IN APPROACH AREA

S-ILS 4R**	359/60 341 (400-1¼)
S-LOC 4R**	440/60 422 (500-1¼)

FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

NE-1, 17 DEC 2009 to 14 JAN 2010

LOC/DME I-LIP	APP CRS	Rwy ldg	10083
110.7	331°	TDZE	16
Chan 44		Apt Elev	20

ILS or LOC RWY 33L

BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

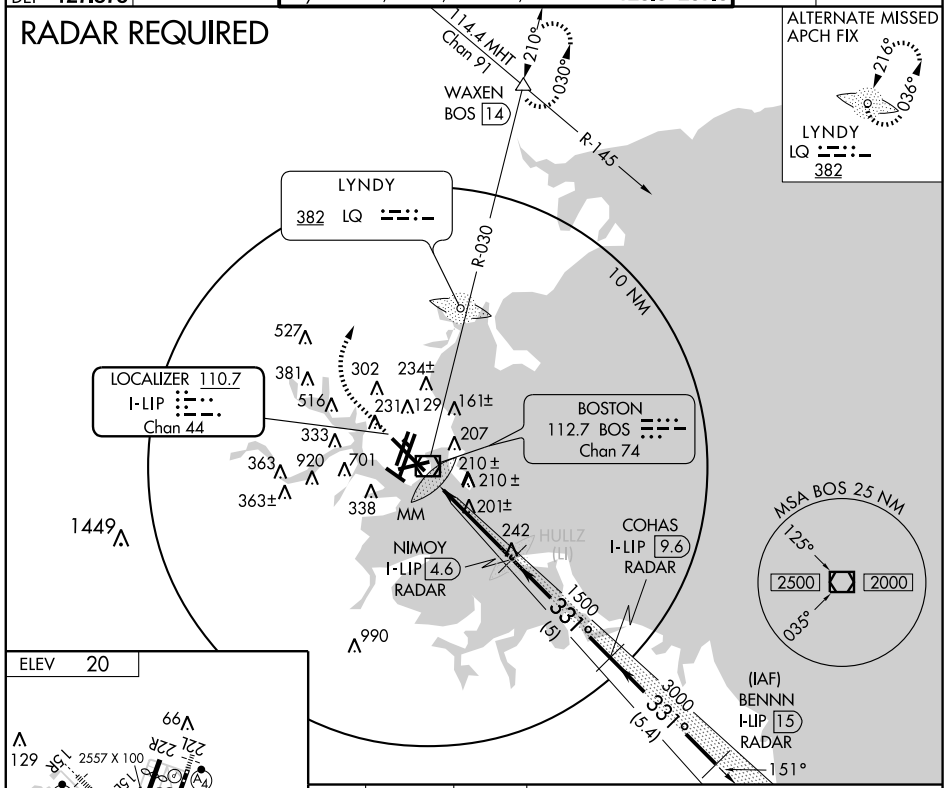
Circling NA for CATs C and D W of Rwys 4L and 15R. DME or RADAR required.

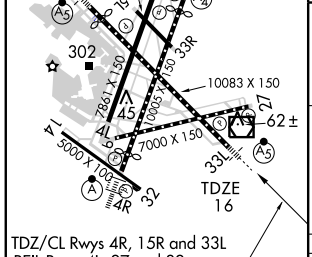
MALSR

MISSED APPROACH: Climb to 1500 then climbing right turn to 3000 via BOS VOR/DME R-030 to WAXEN/BOS VOR/DME 14 DME and hold.

ATIS	BOSTON APP CON	BOSTON TOWER		GND CON	CLNC DEL
ARR 135.0	120.6 263.1	Rwys 4R-22L, 9-27	132.225 257.8	121.9	121.65 257.8
DEP 127.875		Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8 257.8		

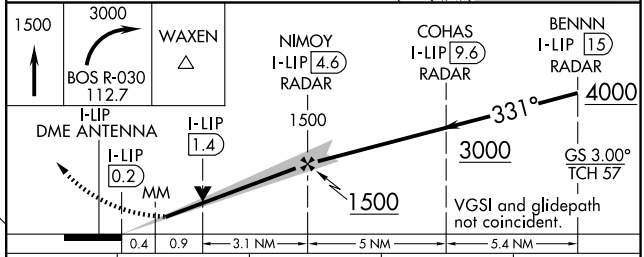
RADAR REQUIRED





TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

331° 4.4 NM from FAF



FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

CATEGORY	A	B	C	D
S-ILS 33L	216/18 200 (200-½)			
S-LOC 33L	480/24 464 (500-½)		480/40 464 (500-¾)	480/50 464 (500-1)
CIRCLING	640-1 620 (700-1)		640-1¾ 620 (700-1¾)	640-2 620 (700-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

ILS RWY 4R (CAT II)
BOSTON/ GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

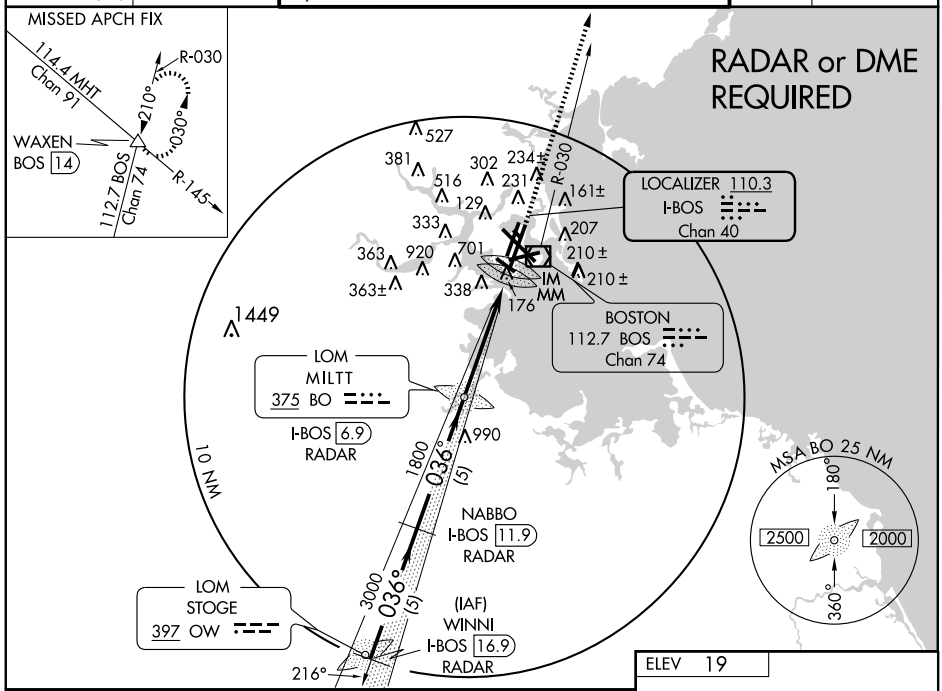
LOC/DME I-BOS	APP CRS	Rwy ldg 8851
110.3	036°	TDZE 18
Chan 40		Apt Elev 19

** When control tower reports tall vessels in approach area, procedure not authorized.

ALSF-2

MISSED APPROACH: Climb to 3000 via BOS R-030 to WAXEN INT/BOS 14 DME and hold.

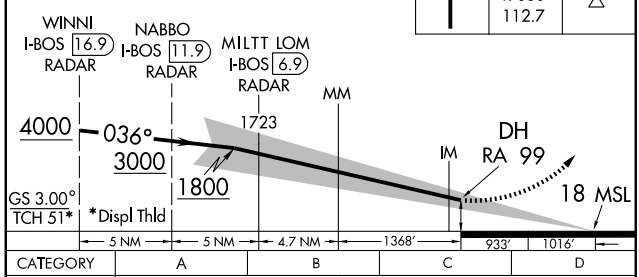
ATIS	BOSTON APP CON	BOSTON TOWER	GND CON	CLNC DEL
ARR 135.0	120.6 263.1	Rwys 4R-22L, 9-27 132.225 257.8	121.9	121.65 257.8
DEP 127.875		Rwys 4L-22R, 14-32, 15R-33L, 15L-33R 128.8 257.8		



NE-1, 17 DEC 2009 to 14 JAN 2010

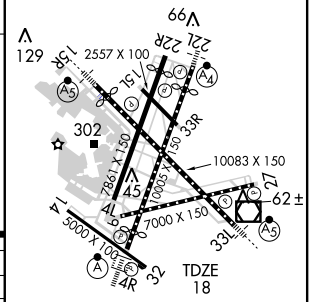
Procedure Turn NA

3000	BOS R-030 112.7	WAXEN



CATEGORY	A	B	C	D
S-ILS 4R**	RA 99/12 100 DA 118			

ELEV 19



TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

LOC/DME I-BOS	APP CRS	Rwy ldg 8851
110.3	036°	TDZE 18
Chan 40		Apt Elev 19

ILS RWY 4R (CAT III)

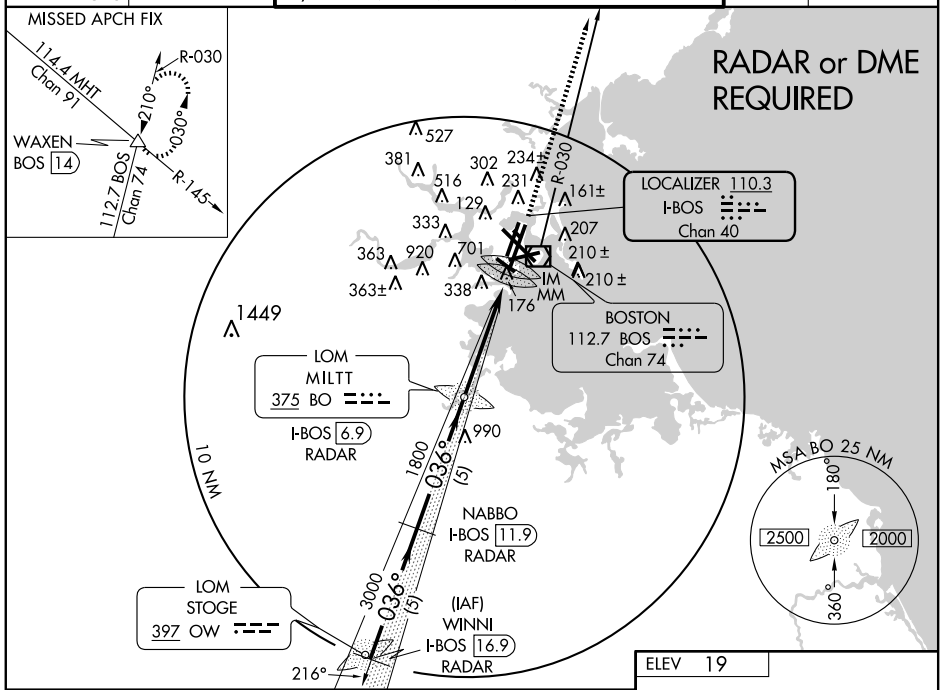
BOSTON/ GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

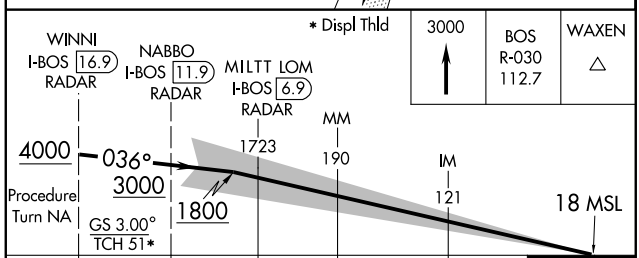
** When control tower reports tall vessels in approach area, procedure not authorized.

ALSF-2

MISSED APPROACH: Climb to 3000 via BOS R-030 to WAXEN INT/BOS 14 DME and hold.

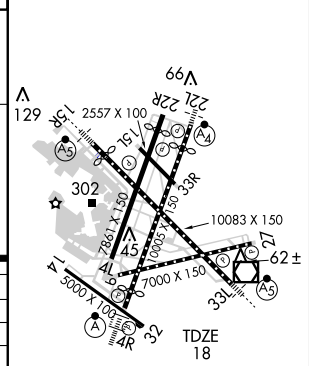
ATIS	BOSTON APP CON	BOSTON TOWER	GND CON	CLNC DEL
ARR 135.0	120.6 263.1	Rwys 4R-22L, 9-27 132.225 257.8	121.9	121.65 257.8
DEP 127.875		Rwys 4L-22R, 14-32, 15R-33L, 15L-33R 128.8 257.8		





CATEGORY	A	B	C	D
S-ILS 4R**	CAT IIIa	RVR 07		
S-ILS 4R**	CAT IIIb	RVR 06		
S-ILS 4R	CAT IIIc	NA		

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

NE-1, 17 DEC 2009 to 14 JAN 2010

ILS RWY 15R

BOSTON/ GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

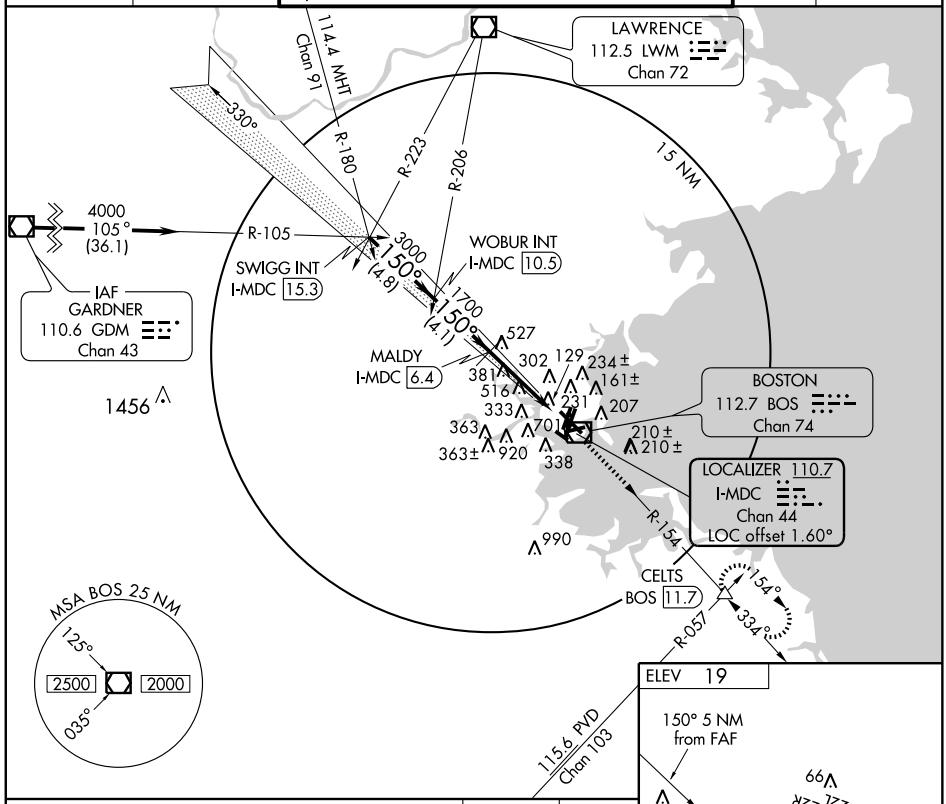
LOC/DME I-MDC	APP CRS	Rwy ldg 9201
110.7 Chan 44	150°	TDZE 17
		Apt Elev 19

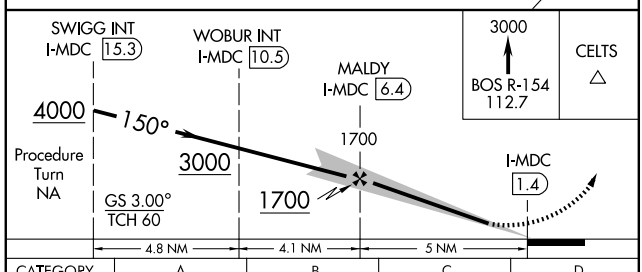
CAT C and D circling not authorized west of Rwys 4L and 15R
For inoperative MALSR, increase S-LOC 15R CATs A and B visibility to RVR 5000. DME REQUIRED.

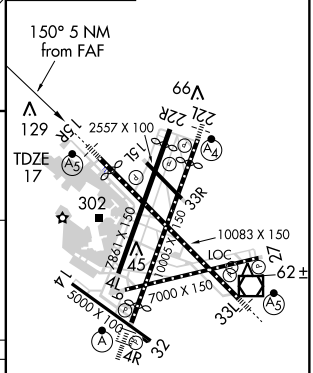
MALSR (A5)

MISSED APPROACH: Climb to 3000 via BOS R-154 to CELTS Int/BOS 11.7 DME and hold.

ATIS	BOSTON APP CON	BOSTON TOWER	GND CON	CLNC DEL
ARR 135.0	120.6 263.1	Rwys 4R-22L, 9-27 132.225 257.8	121.9	121.65 257.8
DEP 127.875		Rwys 4L-22R, 14-32, 15R-33L, 15L-33R 128.8 257.8		







CATEGORY	A	B	C	D
S-ILS 15R	267/24 250 (300-½)			
S-LOC 15R	600/24 583 (600-½)		600/50 583 (600-1)	600/60 583 (600-1¼)
CIRCLING	640-1 621 (700-1)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-LQN	APP CRS	Rwy ldg	8806
110.3	216°	TDZE	16
Chan 40		Apt Elev	19

ILS RWY 22L

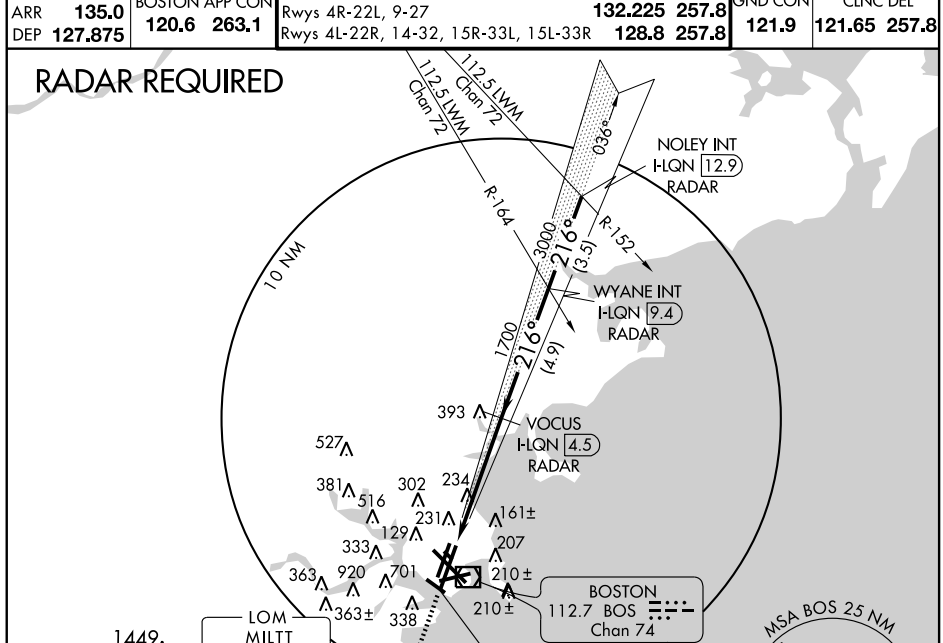
BOSTON/ GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

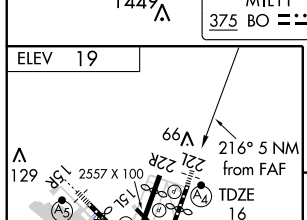
*DME or RADAR required for LOC minimums.
ADF REQUIRED
Circling not authorized Cat C and D west of Rwys 4L and 15R.
Inoperative table does not apply to S-LOC 22L Cat C.

MALSF

MISSED APPROACH: Climb to 3000 direct MILTT LOM and hold.

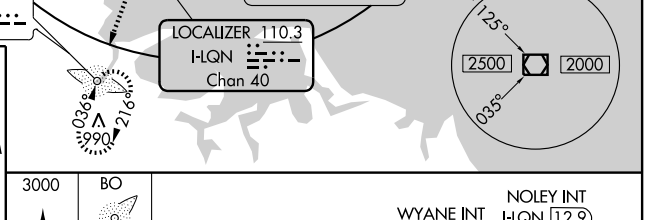
ATIS		BOSTON APP CON		BOSTON TOWER		GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225 257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8 257.8			





REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40



CATEGORY	A	B	C	D
S-ILS 22L	216/40 200 (200-¾)			
S-LOC 22L*	540/40 524 (600-¾)		540 - 1½ 524 (600-1½)	540 -1¾ 524 (600-1¾)
CIRCLING	640-1 621 (700-1)		640 -1¾ 621 (700 -1¾)	640 - 2 621 (700-2)

NE-1, 17 DEC 2009 to 14 JAN 2010

LOC/DME I-DGU	APP CRS	Rwy ldg	7000
111.3	273°	TDZE	17
Chan 50		Apt Elev	19

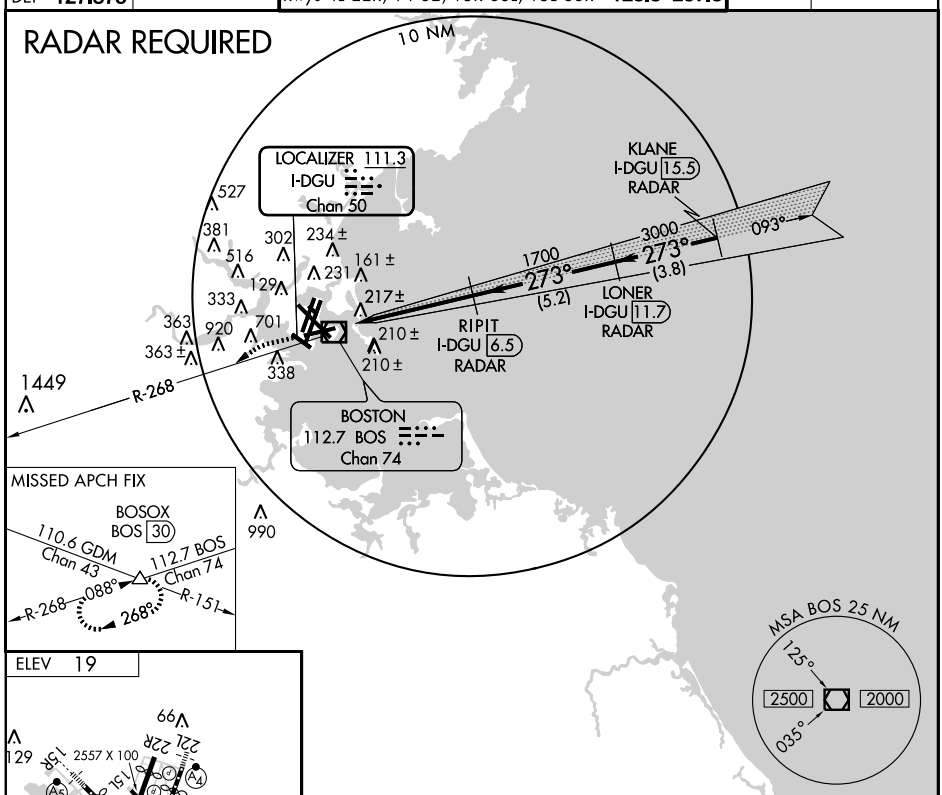
ILS RWY 27

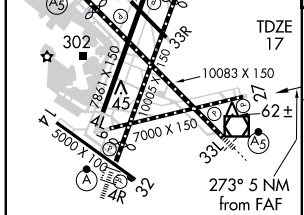
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

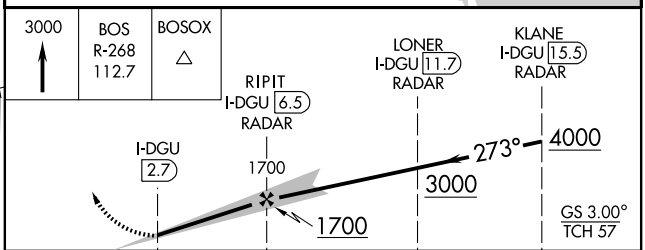
* Radar or DME REQUIRED.
Cats C and D circling NA west of Rwys 4L and 15R.

MISSED APPROACH: Climb to 3000 via BOS VORTAC R-268 to BOSOX INT/BOS 30 DME and hold.

ATIS		BOSTON APP CON		BOSTON TOWER			GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225	257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8	257.8			







TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

FAF to MAP 3.8 NM

Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

CATEGORY	A	B	C	D
S-ILS 27	460-1½ 443 (500-1½)			
S-LOC 27 *	460-1½ 443 (500-1½)			
CIRCLING	640-1½ 621 (700-1½)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

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LOC/DME I-LIP	APP CRS	Rwy ldg	10083
110.7	331°	TDZE	16
Chan 44		Apt Elev	20

ILS RWY 33L (CAT II)

BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

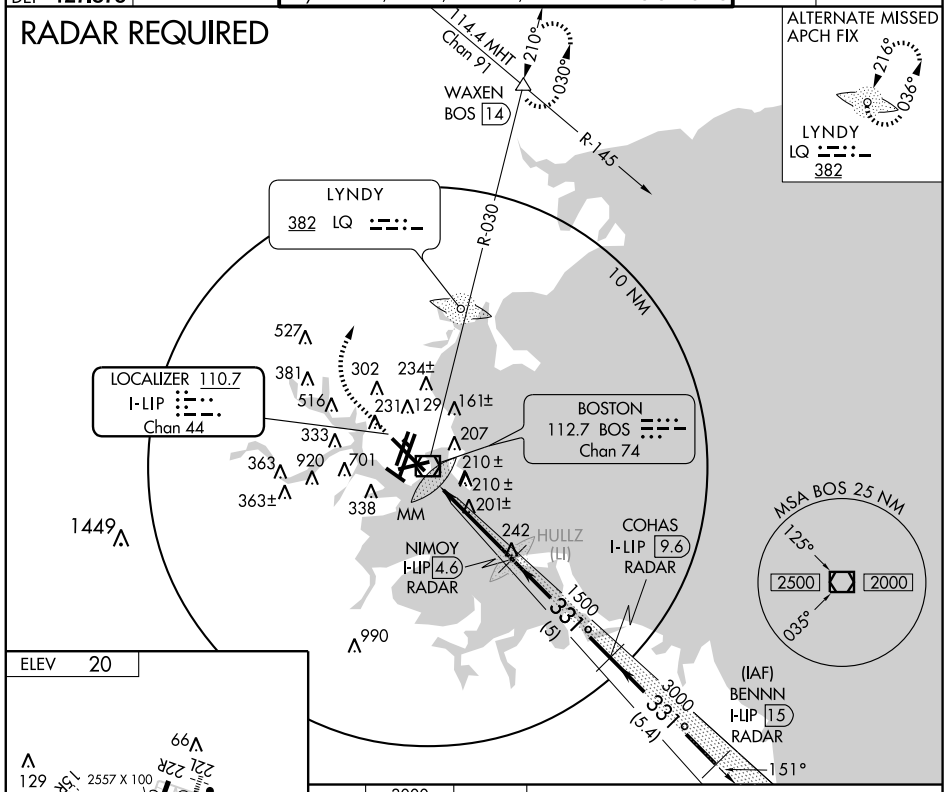
Procedure does not meet ICAO standard for ALSF/TDZ/CL lighting systems. Authorization to conduct this approach requires specific OPSSPEC approval or LOA for this runway. DME or Radar required.

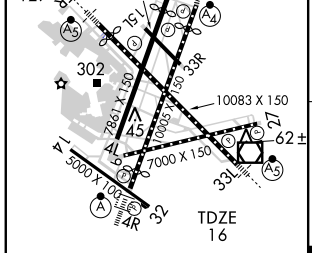
MALSR

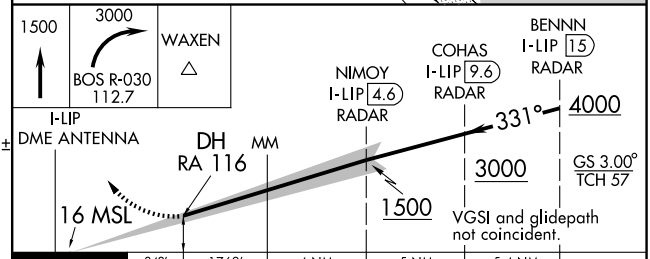
MISSED APPROACH: Climb to 1500 then climbing right turn to 3000 via BOS VOR/DME R-030 to WAXEN/BOS VOR/DME 14 DME and hold.

ATIS		BOSTON APP CON		BOSTON TOWER		GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225 257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8 257.8			

RADAR REQUIRED







CATEGORY	A	B	C	D
S-ILS 33L	RA 116/12 100 DA 116			

TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

CATEGORY II - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

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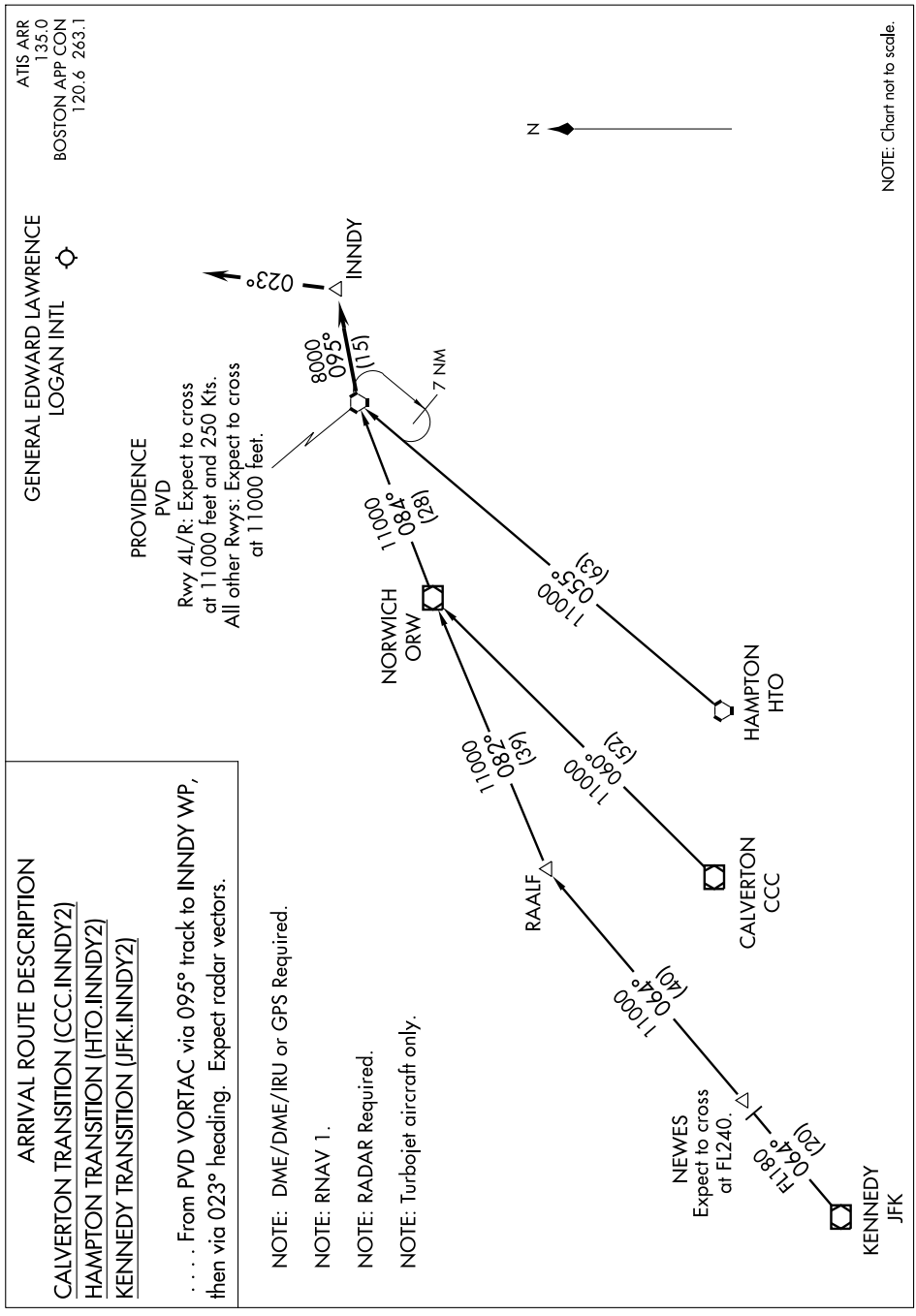
INNDY TWO ARRIVAL (RNAV)



ARRIVAL ROUTE DESCRIPTION

CALVERTON TRANSITION (CCC.INNDY2)
HAMPTON TRANSITION (HTO.INNDY2)
KENNEDY TRANSITION (JFK.INNDY2)

. . . . From PVD VORTAC via 095° track to INNDY WP, then via 023° heading. Expect radar vectors.

NOTE: DME/DME/IRU or GPS Required.

NOTE: RNAV 1.

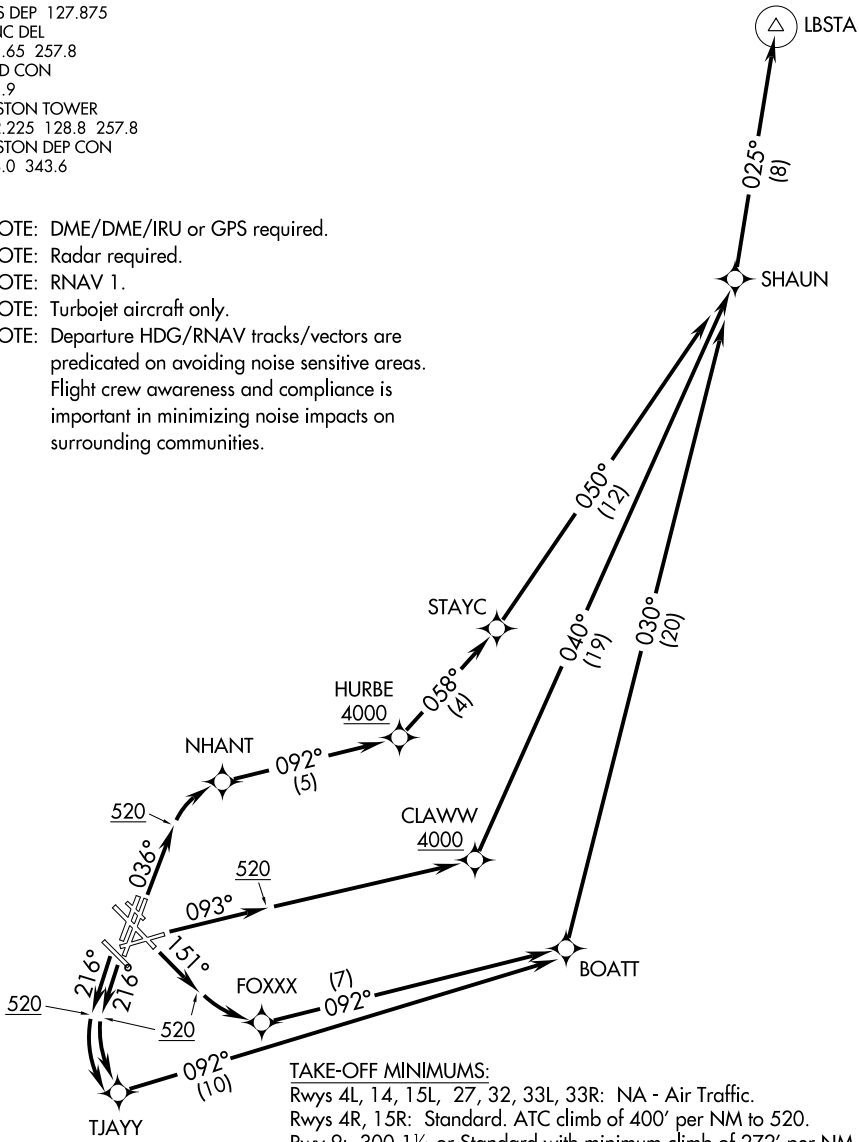
NOTE: RADAR Required.

NOTE: Turbojet aircraft only.

LBSTA ONE DEPARTURE (RNAV)

ATIS DEP 127.875
CLNC DEL
121.65 257.8
GND CON
121.9
BOSTON TOWER
132.225 128.8 257.8
BOSTON DEP CON
133.0 343.6

NOTE: DME/DME/IRU or GPS required.
NOTE: Radar required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Departure HDG/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.



TAKE-OFF MINIMUMS:
Rwys 4L, 14, 15L, 27, 32, 33L, 33R: NA - Air Traffic.
Rwys 4R, 15R: Standard. ATC climb of 400′ per NM to 520.
Rwy 9: 300-1¼ or Standard with minimum climb of 272′ per NM to 300. ATC climb of 500′ per NM to 4000.
Rwy 22L: 300-1 or Standard when tower reports no tall vessels in the departure area. ATC climb of 400′ per NM to 520.
Rwy 22R: 300-1¾ or Standard with minimum climb of 320′ per NM to 400. ATC climb of 400′ per NM to 520.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4R: Climb heading 036° to 520 MSL, then climb to assigned altitude direct NHANT, and via track 092° to HURBE, cross HURBE at or above 4000, thence...
TAKE-OFF RUNWAY 9: Climb heading 093° to 520 MSL, then climb to assigned altitude direct CLAWW, cross CLAWW at or above 4000 thence....
TAKE-OFF RUNWAY 15R: Climb heading 151° to 520 MSL, then climb to assigned altitude direct FOXXX, thence...
TAKE-OFF RUNWAY 22L/22R: Climb heading 216° to 520 MSL, then climb to assigned altitude direct TJAYY, thence...

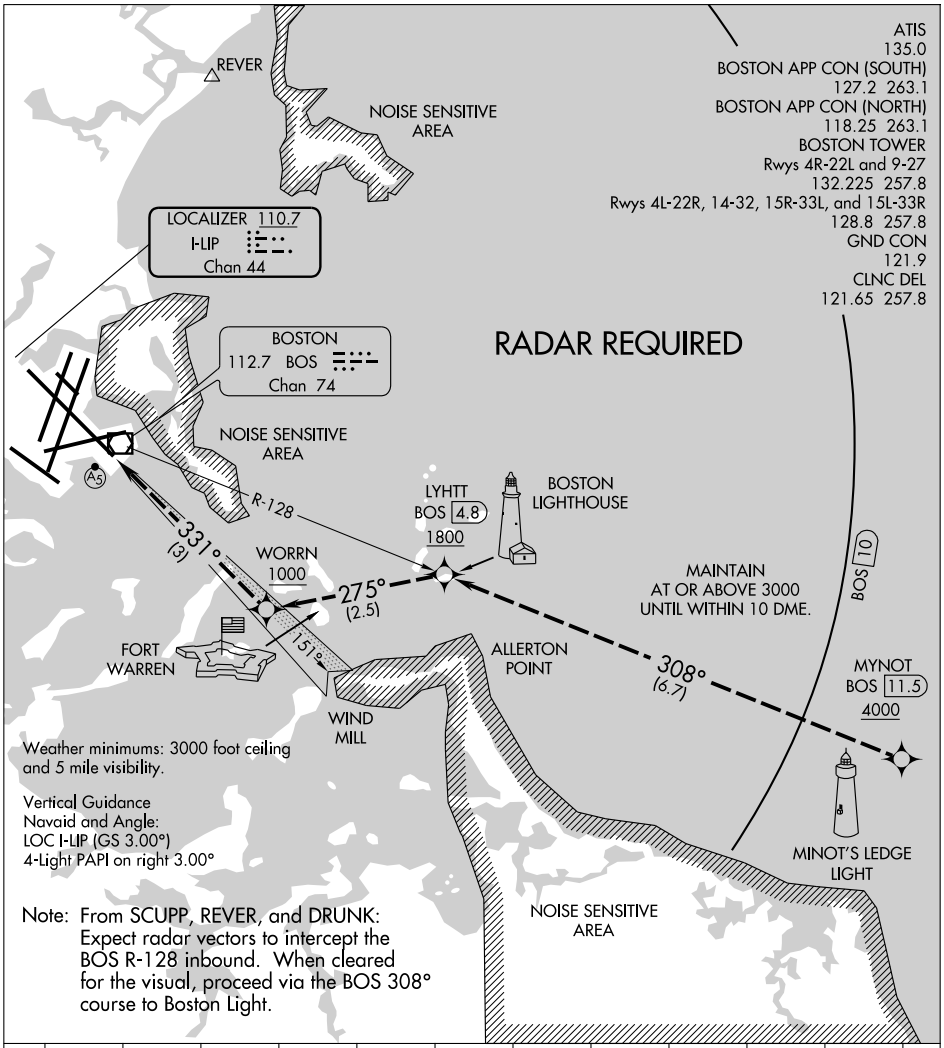
....via depicted route to LBSTA. Maintain 5000′ or lower assigned altitude. Expect clearance to filed altitude/flight level ten (10) minutes after departure.

TAKE-OFF OBSTACLES:
Rwy 4R: Light on pole and multiple trees beginning 1807′ from DER, 403′ left of centerline, up to 33′ AGL/79′ MSL. Ship 579′ from DER, on centerline, 50′ AGL/50′ MSL. Crane 2001′ from DER, 434′ right of centerline, 101′ AGL/114′ MSL. Mobile crane 2009′ from DER, 206′ right of centerline, 114′ AGL/134 MSL.
Rwy 9: Antenna on standpipe and tank beginning 5878′ from DER, 1429′ left of centerline, up to 138′ AGL/217′ MSL. Ship 763′ from DER, on centerline, 65′ AGL/65′ MSL.
Rwy 15R: Sign 45′ from DER, 267′ right of centerline, 6′ AGL, 16′ MSL.
Rwy 22L: RIG 2441′ from DER, 35′ left of centerline, 176′ AGL/176′ MSL. Obstruction light pole 3586′ from DER, 926′ left of centerline, 108′ AGL/128′ MSL. Mobile crane 3676′ from DER, 440′ right of centerline, 122′ AGL/145′ MSL.
Rwy 22R: RIG, 4586′ from DER, 1535′ left of centerline, 176′ AGL/176′ MSL. RIG 4064′ from DER, 8′ right of centerline, 176′ AGL/176′ MSL. Stacks 1.3 NM from DER, 1598′ right of centerline, 255′ AGL/278′ MSL.

Orig 09155

LIGHT VISUAL RWY 33L

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)
AL-58 (FAA)
BOSTON, MASSACHUSETTS



Weather minimums: 3000 foot ceiling and 5 mile visibility.

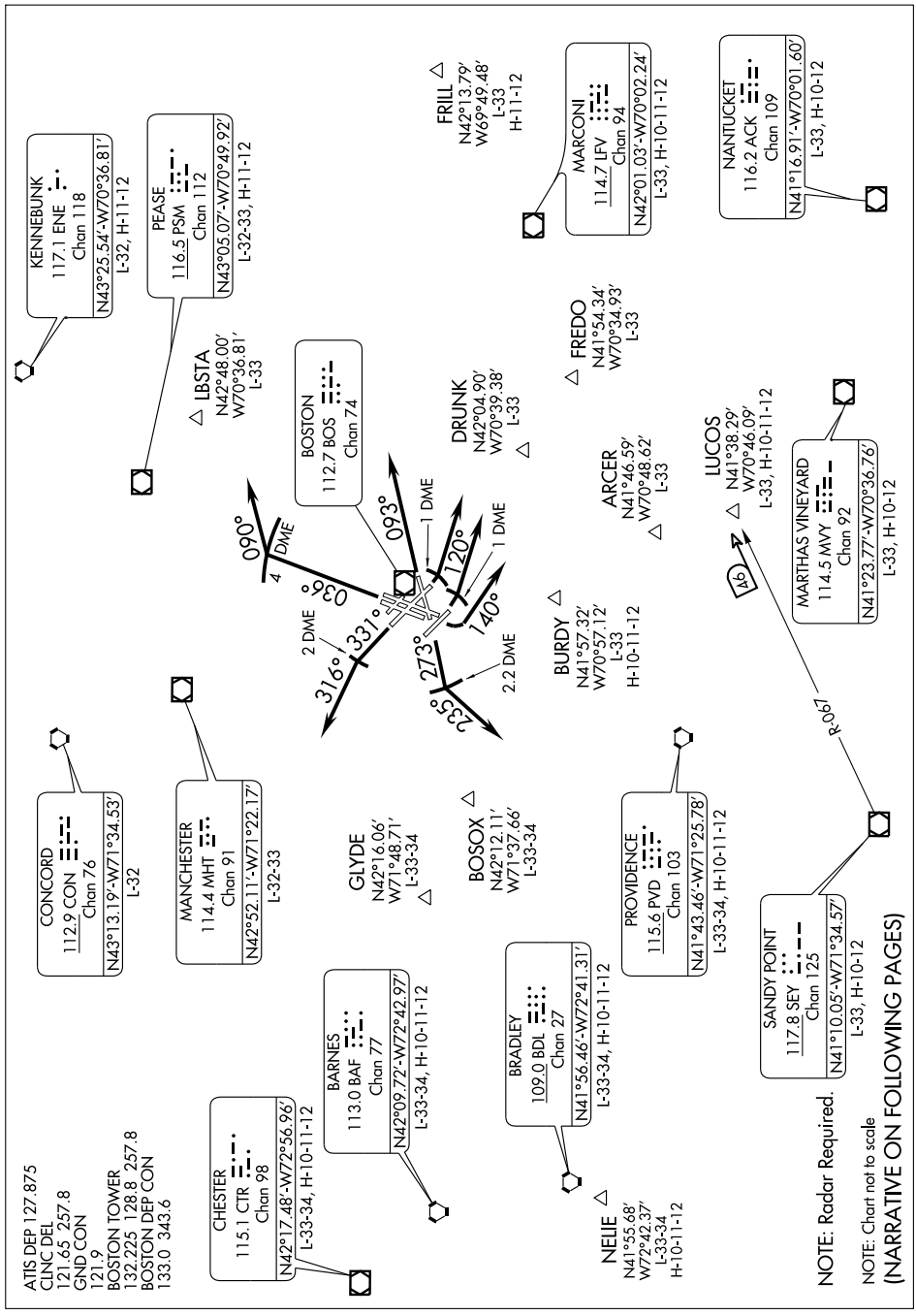
Vertical Guidance
Navaid and Angle:
LOC I-LIP (GS 3.00°)
4-Light PAPI on right 3.00°

Note: From SCUPP, REVER, and DRUNK: Expect radar vectors to intercept the BOS R-128 inbound. When cleared for the visual, proceed via the BOS 308° course to Boston Light.

LOGAN FOUR DEPARTURE

SL-58 (FAA)

BOSTON, MASSACHUSETTS



NOTE: Radar Required.

NOTE: Chart not to scale

(NARRATIVE ON FOLLOWING PAGES)

DEPARTURE ROUTE DESCRIPTION

JET AIRCRAFT:
TAKE-OFF RUNWAY 4R/L: Fly heading 036° to BOS 4 DME, then turn right heading 090°, thence....
TAKE-OFF RUNWAY 9: Fly heading 093°, thence....
TAKE-OFF RUNWAY 14: Fly heading 142° to BOS 1 DME, then turn left heading 120°, thence....
TAKE-OFF RUNWAY 15R: Fly heading 151° to BOS 1 DME, then turn left heading 120°, thence....
TAKE-OFF RUNWAY 22R/L: Turn left heading 140°, thence....
TAKE-OFF RUNWAY 27: Fly heading 273° to BOS 2.2 DME, then turn left heading 235°, thence....
TAKE-OFF RUNWAY 33L: Fly heading 331° to BOS 2 DME, then turn left heading 316°, thence....

NON JET AIRCRAFT: Climb on assigned heading, thence....

....expect radar vectors to assigned ROUTE/NAVAID/FIX. Jet aircraft maintain 5000′ or lower assigned altitude. Non-jet aircraft maintain 3000′ or lower assigned altitude. All aircraft expect clearance to filed altitude/flight level ten (10) minutes after departure.

NOTE: JET AIRCRAFT departure headings/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities. Aircraft that are initially vectored over water can expect to cross the coastline above 6000′ before proceeding on course.

TAKE-OFF MINIMUMS:
RWY 15L, 32, 33R, NA - ENVIRONMENTAL.
RWY 4R, STANDARD.
RWY 4L, 300-1 or STANDARD with minimum climb of 358′ per NM to 300′.
RWY 9, 300-1¼ or STANDARD with minimum climb of 272′ per NM to 300′.
RWY 14, STANDARD with minimum ATC climb of 500′ per NM to 420′.
RWY 15R, STANDARD with minimum ATC climb of 431′ per NM to 420′.
RWY 22L, 300-1 or STANDARD when tower reports no tall vessels in the departure area.
RWY 22R, 300-1¾ or STANDARD with minimum climb of 320′ per NM to 400′.
RWY 27, STANDARD with minimum climb of 477′ per NM to 1300′.
RWY 33L, STANDARD with minimum ATC climb of 465′ per NM to 200′.

(CONTINUED ON FOLLOWING PAGE)

NE-1. 17 DEC 2009 to 14 JAN 2010

T

(CONTINUED)

TAKE-OFF OBSTACLES:

RWY 4L, Light on blast fence 184′ from DER, 249′ left of centerline, 6′ AGL/23′ MSL.
Tree 2094′ from DER, 92′ left of centerline, 47′ AGL/77′ MSL.
Tree 3975′ from DER, 1486′ left of centerline, 50′ AGL/198′ MSL.
Tree 4228′ from DER, 544′ left of centerline, 47′ AGL/143′ MSL.
Ship 694′ from DER, on centerline, 50′ AGL/50′ MSL.
Light on blast fence 230′ from DER, 63′ right of centerline, 6′ AGL/23′ MSL.
Light on pole and mutiple trees beginning 1806′ from DER, 740′ right of centerline, up to 33′ AGL/79′ MSL.

RWY 4R, Light on pole and mutiple trees beginning 1807′ from DER, 403′ left of centerline, up to 33′ AGL/79′ MSL.
Ship 579′ from DER, on centerline, 50′ AGL/50′ MSL.
Crane 2001′ from DER, 434′ right of centerline, 101′ AGL/114′ MSL.
Mobile crane 2009′ from DER, 206′ right of centerline, 114′ AGL/134′ MSL.

RWY 9, Antenna on standpipe and tank beginning 5878′ from DER, 1429′ left of centerline, up to 138′ AGL/217′ MSL.
Ship 763′ from DER, on centerline, 65′ AGL/65′ MSL.

RWY 14, Ship rig 5439′ from DER, 1824′ right of centerline, 176′ AGL/176′ MSL.

RWY 15L, Sign 169′ from DER, 279′ right of centerline, 6′ AGL/19′ MSL.

RWY 15R, Sign 45′ from DER, 267′ right of centerline, 6′ AGL/16′ MSL.

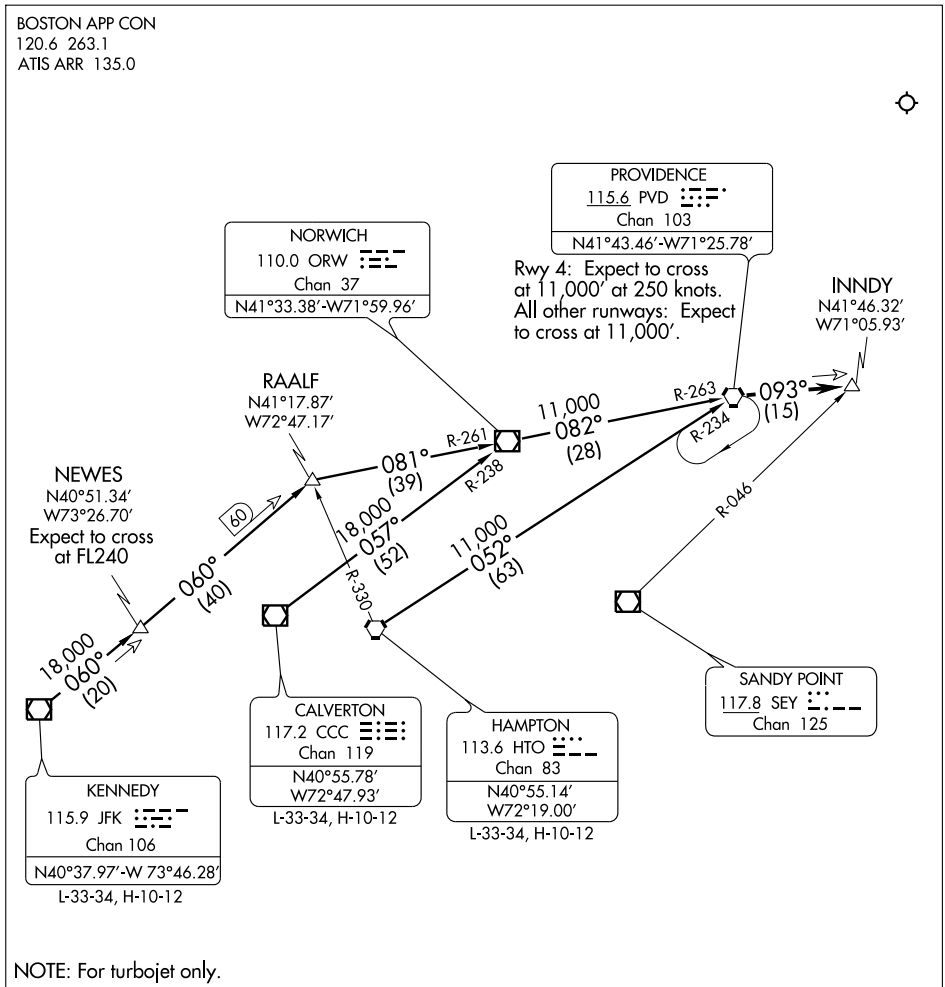
RWY 22L, Rig 2441′ from DER, 35′ left of centerline, 176′ AGL/176′ MSL.
Obstruction light pole 3586′ from DER, 926′ left of centerline, 108′ AGL/128′ MSL.
Mobile crane 3676′ from DER, 440′ right of centerline, 122′ AGL/145′ MSL.

RWY 22R, Rig 4586′ from DER, 1535′ left of centerline, 176′ AGL/176′ MSL.
Rig 4064′ from DER, 8′ right of centerline, 176′ AGL/176′ MSL.
Stacks 1.3 NM from DER, 1598′ right of centerline, 255′ AGL/278′ MSL.

RWY 27, Mutiple buildings beginning 1.3 NM from DER, 129′ left of centerline, up to 251′ AGL/261′ MSL.
Light pole and rod on pole beginning 1691′ from DER, 749′ right of centerline, up to 60′ AGL/100′ MSL.
Rig 4822′ from DER, 35′ right of centerline, 176′ AGL/176′ MSL.
Mutiple buildings beginning 1.7 NM from DER, 1479′ right of centerline, up to 685′ AGL/701′ MSL.

RWY 33L, Mutiple lights, rod on tank and light on building 796′ from DER, 604′ left of centerline, up to 46′ AGL/73′ MSL.
Building and chimney on building beginning 4301′ from DER, 1079′ left of centerline, up to 40′ AGL/149′ MSL.
Bridge 1.4 NM from DER, 2615′ left of centerline, 263′ AGL/263′ MSL.
Mutiple trees, wind direction indicator on tower and sign beginning 249′ from DER, 51′ right of centerline, up to 35′ AGL/101′ MSL.

BOSTON APP CON
120.6 263.1
ATIS ARR 135.0



NOTE: For turbojet only.

NOTE: Chart not to scale.

CALVERTON TRANSITION (CCC.ORW3): From over CCC VOR/DME via CCC R-057 and ORW R-238 to ORW VOR/DME, then via ORW R-082 and PVD R-263 to PVD VORTAC. Thence....

HAMPTON TRANSITION (HTO.ORW3): From over HTO VORTAC via HTO R-052 and PVD R-234 to PVD VORTAC. Thence....

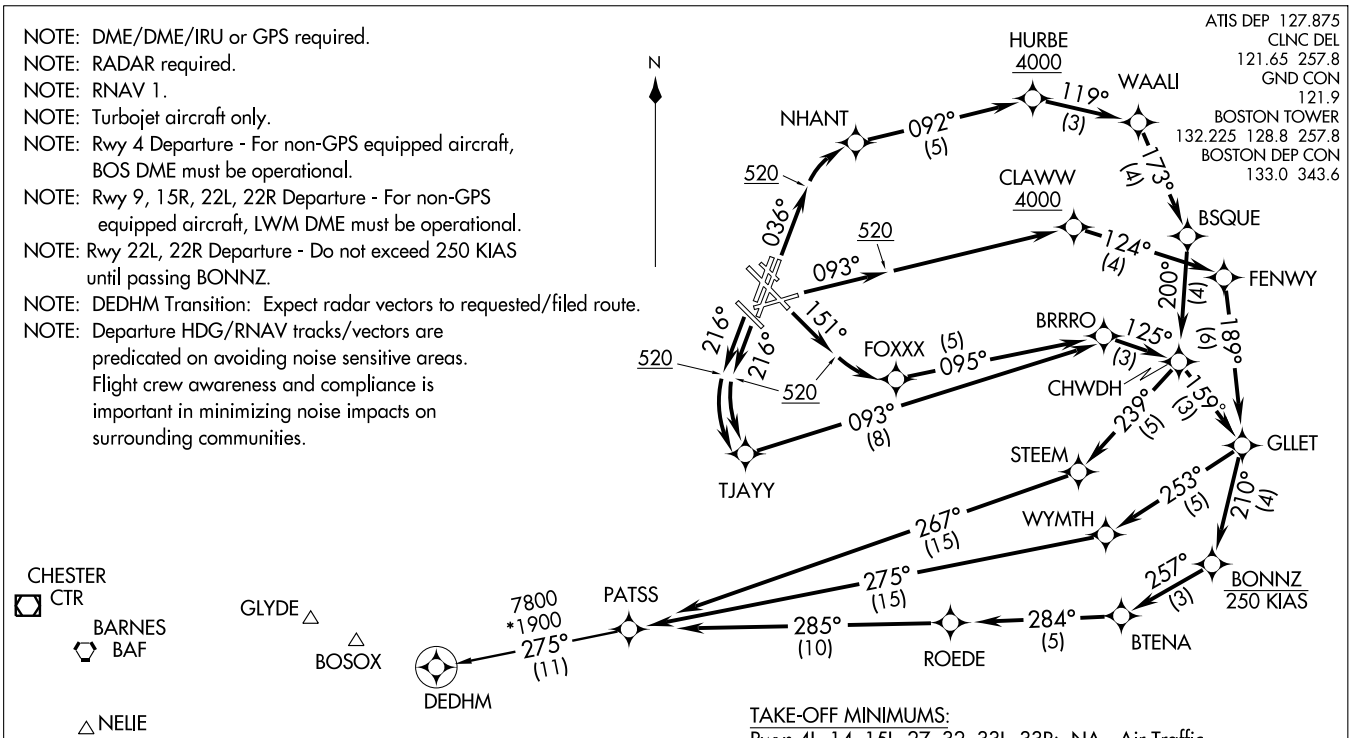
KENNEDY TRANSITION (JFK.ORW3): From over JFK VOR/DME via R-060 to RAALF INT, then via ORW R-261 to ORW VOR/DME, then via ORW R-082 and PVD R-263 to PVD VORTAC. Thence....

....From over PVD VORTAC via PVD R-093 to INNDY INT. Expect radar vectors to final approach course.

NE-1, 17 DEC 2009 to 14 JAN 2010

PATSS ONE DEPARTURE (RNAV)

NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Rwy 4 Departure - For non-GPS equipped aircraft, BOS DME must be operational.
NOTE: Rwy 9, 15R, 22L, 22R Departure - For non-GPS equipped aircraft, LWM DME must be operational.
NOTE: Rwy 22L, 22R Departure - Do not exceed 250 KIAS until passing BONNZ.
NOTE: DEDHM Transition: Expect radar vectors to requested/filed route.
NOTE: Departure HDG/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.



TAKE-OFF MINIMUMS:
Rwys 4L, 14, 15L, 27, 32, 33L, 33R: NA - Air Traffic.
Rwy 4R, 15R: Standard. ATC climb of 400′ per NM to 520.
Rwy 9: 300-1¼ or Standard with minimum climb of 272′ per NM to 300. ATC climb of 500′ per NM to 4000.
Rwy 22L: 300-1 or Standard when tower reports no tall vessels in the departure area. ATC climb of 400′ per NM to 520.
Rwy 22R: 300-1¾ or Standard with minimum climb of 320′ per NM to 400. ATC climb of 400′ per NM to 520.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4R: Climb heading 036° to 520 MSL, then climb to assigned altitude direct NHANT, and via track 092° to HURBE, cross HURBE at or above 4000, and via track 119° to WAALI and track 173° to BSQUE and track 200° to CHWDH and track 239° to STEEM and track 267° to PATSS, thence...
TAKE-OFF RUNWAY 9: Climb heading 093° to 520 MSL, then climb to assigned altitude direct CLAWW, cross CLAWW at or above 4000, and via track 124° to FENWY and track 189° to GLLET and track 253° to WYMTH and track 275° to PATSS, thence....
TAKE-OFF RUNWAY 15R: Climb heading 151° to 520 MSL, then climb to assigned altitude direct FOXXX and via track 095° to BRRRO and track 125° to CHWDH and track 159° to GLLET and track 210° to BONNZ and track 257° to BTENA and track 284° to ROEDE and 285° to PATSS, thence...
TAKE-OFF RUNWAY 22L/22R: Climb heading 216° to 520 MSL, then climb to assigned altitude direct TJAYY and via track 093° to BRRRO and track 125° to CHWDH and track 159° to GLLET and track 210° to BONNZ and track 257° to BTENA and track 284° to ROEDE and 285° to PATSS, thence...

....Maintain 5000′ or lower assigned altitude. Expect clearance to filed altitude/flight level ten (10) minutes after departure.

DEDHM TRANSITION (PATSS1.DEDHM):

TAKE-OFF OBSTACLES:
Rwy 4R: Light on pole and multiple trees beginning 1807′ from DER, 403′ left of centerline, up to 33′ AGL/79′ MSL. Ship 579′ from DER, on centerline, 50′ AGL/50′ MSL. Crane 2001′ from DER, 434′ right of centerline, 101′ AGL/114′ MSL. Mobile crane 2009′ from DER, 206′ right of centerline, 114′ AGL/134 MSL.
Rwy 9: Antenna on standpipe and tank beginning 5878′ from DER, 1429′ left of centerline, up to 138′ AGL/217′ MSL. Ship 763′ from DER, on centerline, 65′ AGL/65′ MSL.
Rwy 15R: Sign 45′ from DER, 267′ right of centerline, 6′ AGL, 16′ MSL.
Rwy 22L: RIG 2441′ from DER, 35′ left of centerline, 176′ AGL/176′ MSL. Obstruction light pole 3586′ from DER, 926′ left of centerline, 108′ AGL/128′ MSL. Mobile crane 3676′ from DER, 440′ right of centerline, 122′ AGL/145′ MSL.
Rwy 22R: RIG, 4586′ from DER, 1535′ left of centerline, 176′ AGL/176′ MSL. RIG 4064′ from DER, 8′ right of centerline, 176′ AGL/176′ MSL. Stacks 1.3 NM from DER, 1598′ right of centerline, 255′ AGL/278′ MSL.

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APP CRS	Rwy ldg	8851
036°	TDZE	18
	Apt Elev	19

RNAV (GPS) RWY 4R

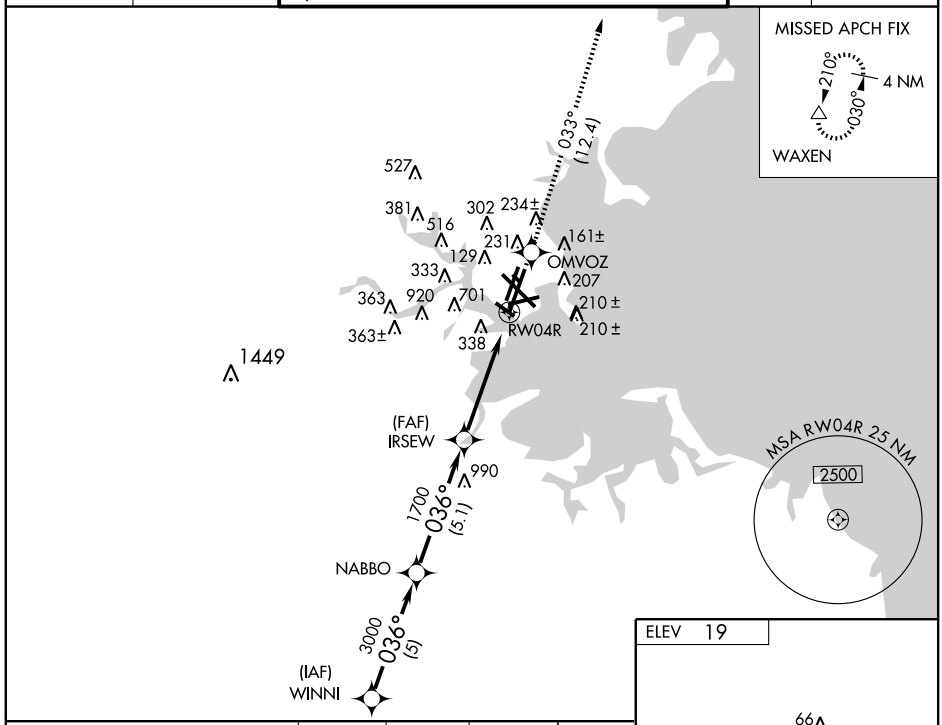
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

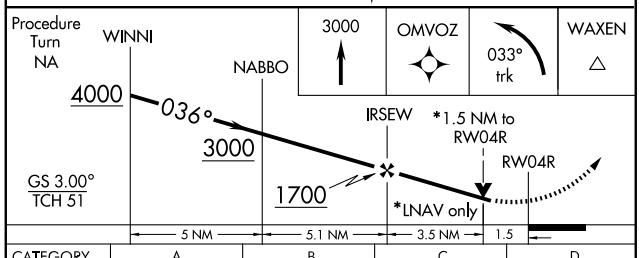
CATs C and D circling not authorized west of Rwys 4L and 15R.
Baro-VNAV NA below -15°C (5°F).
When control tower reports tall vessels in approach area, LNAV/VNAV DA NA, increase LNAV CAT A and B visibility to RVR 4000.
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

ALSF-2

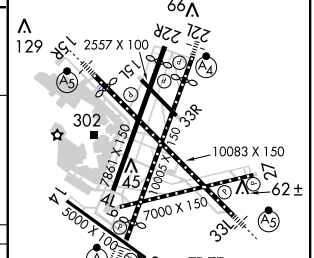
MISSED APPROACH: Climb to 3000 direct OMVOZ WP then left turn via 033° track to WAXEN WP and hold.

ATIS		BOSTON APP CON		BOSTON TOWER			GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225	257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8	257.8			





CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	560-1½ 542 (600-1½)			
LNAV MDA	560/24 542 (600-½)		560/50 542 (600-1)	560/60 542 (600-1¼)
CIRCLING	640-2 621 (700-2)			



APP CRS	Rwy ldg	9201
149°	TDZE	17
	Apt Elev	19

RNAV (GPS) RWY 15R

BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

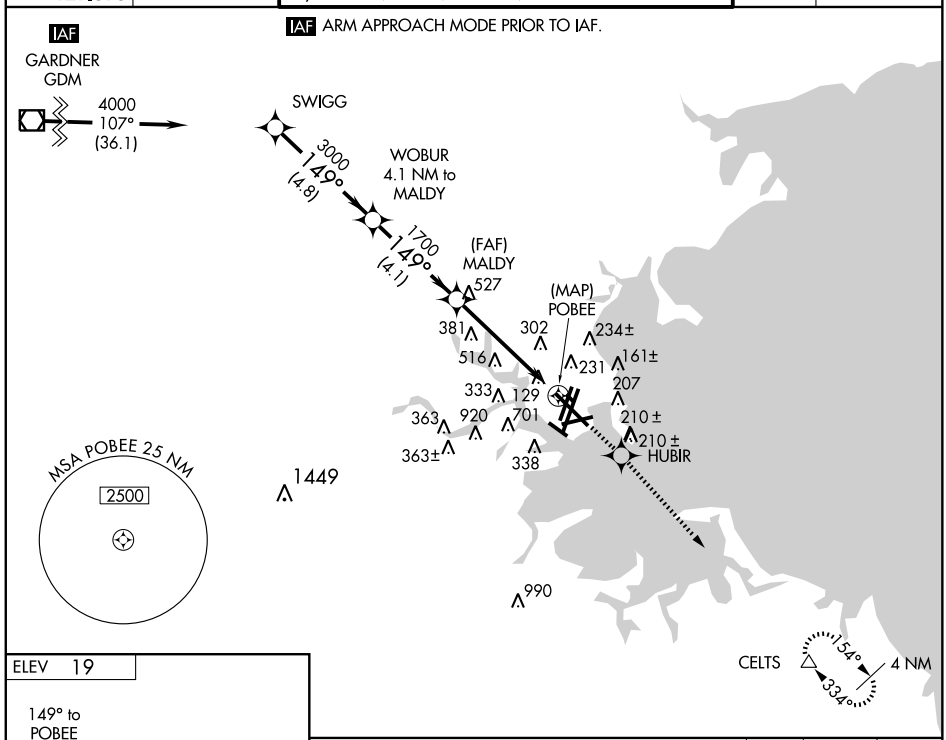
T CATs C and D circling not authorized west of Rwys 4L and 15R.
A NA Baro-VNAV NA below -15°C (5°F).
W GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

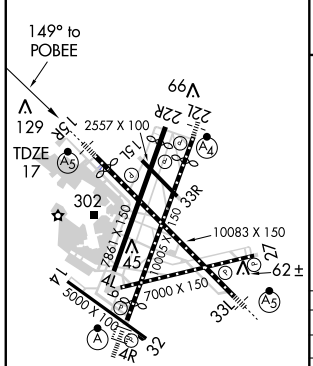
MALSR

MISSED APPROACH: Climb to 3000 direct HUBIR WP and via 154° track to CELTS WP and hold.

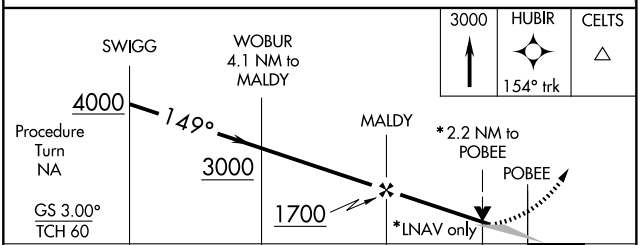
ATIS		BOSTON APP CON		BOSTON TOWER			GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225	257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8	257.8			

IAF ARM APPROACH MODE PRIOR TO IAF.





TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	760-2 743 (800-2)			
LNAV MDA	780/24 763 (800-½)	780/40 763 (800-¾)	780-1¾ 763 (800-1¾)	780-2 763 (800-2)
CIRCLING	780-2½ 761 (800-2½)			

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	8806
216°	TDZE	16
	Apt Elev	19

RNAV (GPS) RWY 22L

BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

CATs C and D circling not authorized west of Rwys 4L and 15R.
Inoperative table does not apply to LNAV Cat C.
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

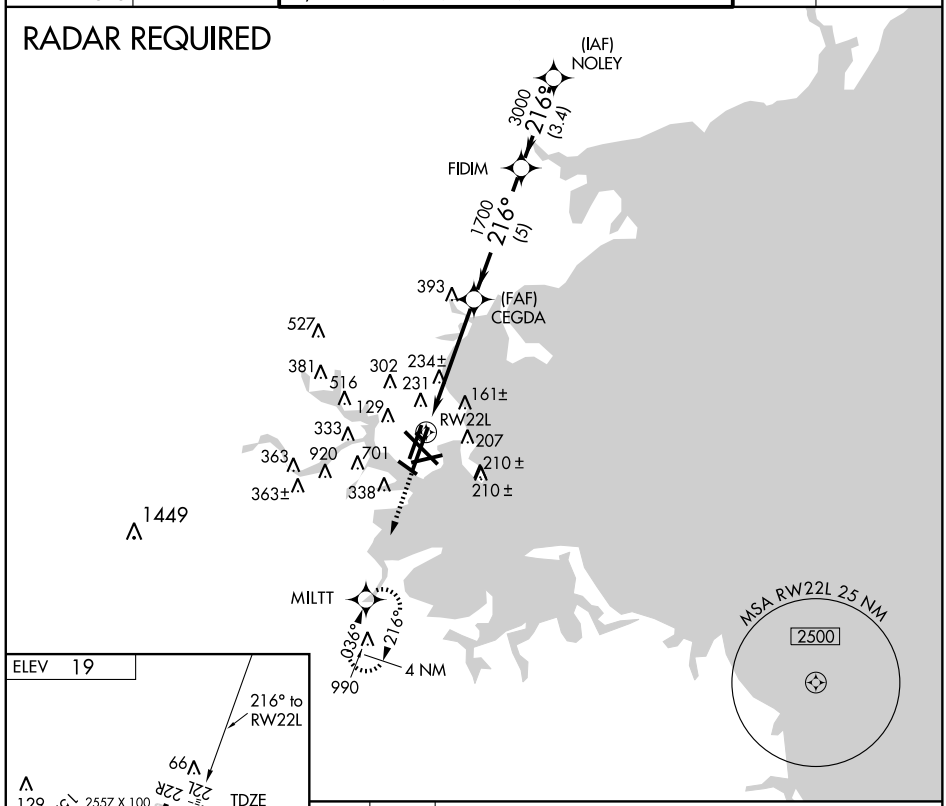
NA

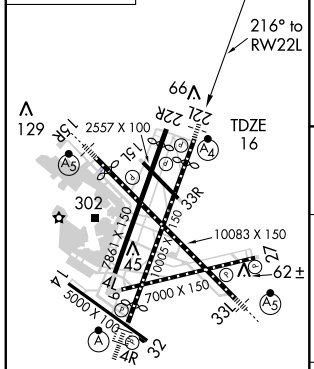
MALSF

MISSED APPROACH: Climb to 3000 direct MILTT WP and hold.

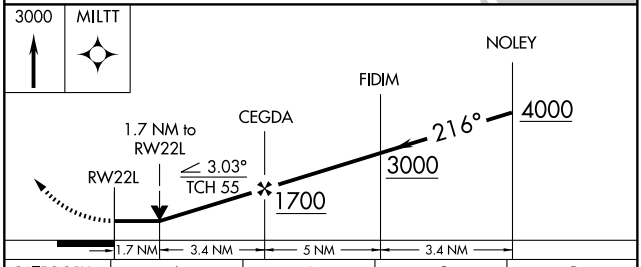
ATIS		BOSTON APP CON		BOSTON TOWER			GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225	257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8	257.8			

RADAR REQUIRED





TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27



CATEGORY	A	B	C	D
LNAV MDA	600/40 584 (600-¾)		600-1½ 584 (600-1½)	600-1¾ 584 (600-1¾)
CIRCLING	640-1 621 (700-1)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	7000
273°	TDZE	17
	Apt Elev	19

RNAV (GPS) RWY 27

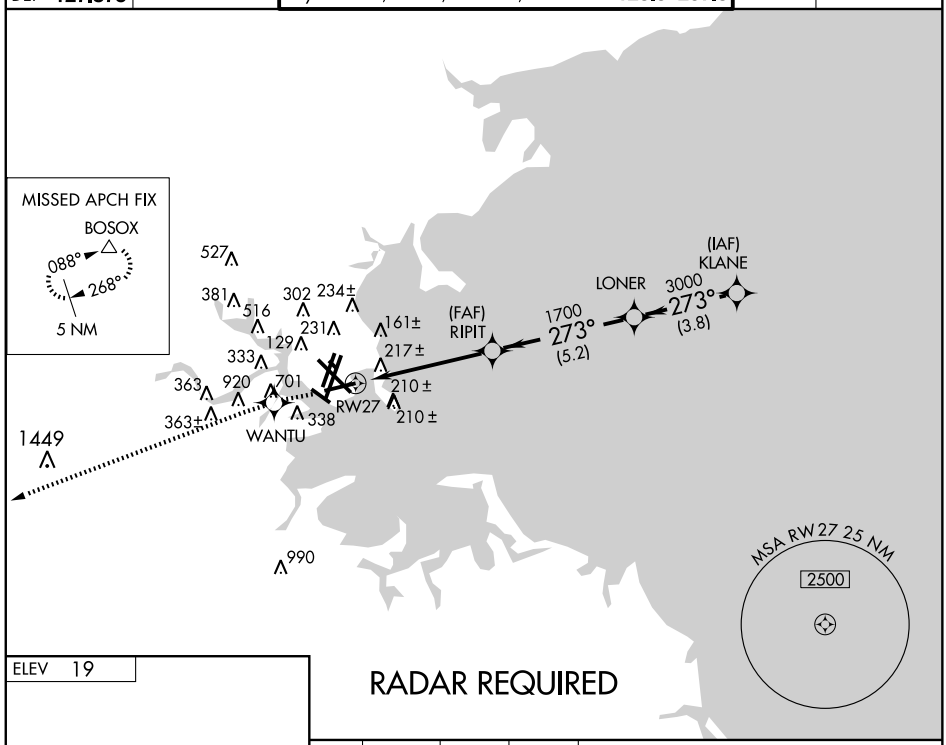
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

T
A NA
W

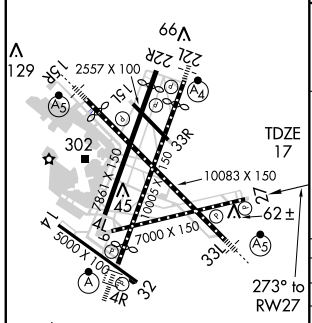
CATs C and D circling not authorized west of Rwys 4L and 15R.
Baro-VNAV NA below -15°C (5°F).
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct WANTU WP and 267° track to BOSOX WP and hold.

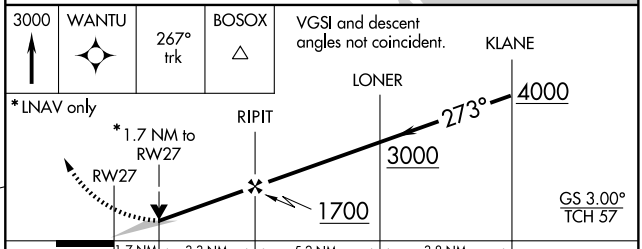
ATIS		BOSTON APP CON		BOSTON TOWER			GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225	257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8	257.8			



RADAR REQUIRED



TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	480-1½ 463 (500-1½)			
LNAV MDA	640-1 623 (700-1)		640-1¾ 623 (700-1¾)	640-2 623 (700-2)
CIRCLING	640-1½ 621 (700-1½)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	5000
332°	TDZE	20
	Apt Elev	20

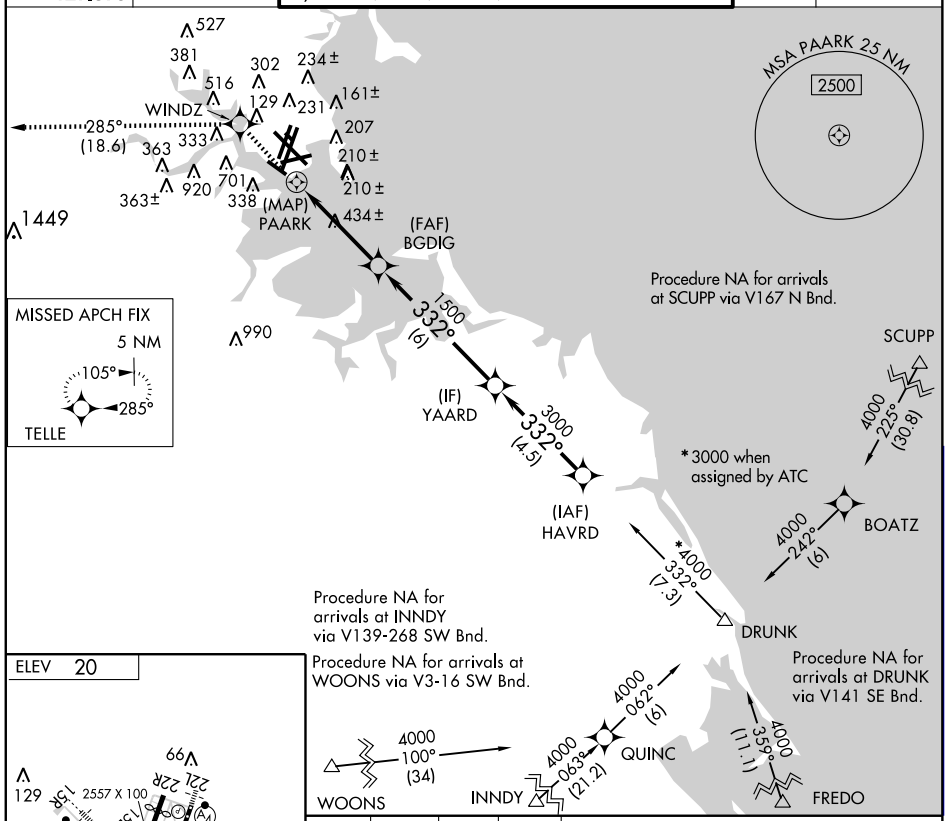
RNAV (GPS) RWY 32

BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

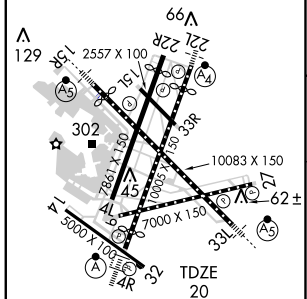
DME/DME RNP-0.3 NA. Circling to Rwy 14 NA.
Circling NA for Cats B, C and D west of Rwys 4L and 15R.

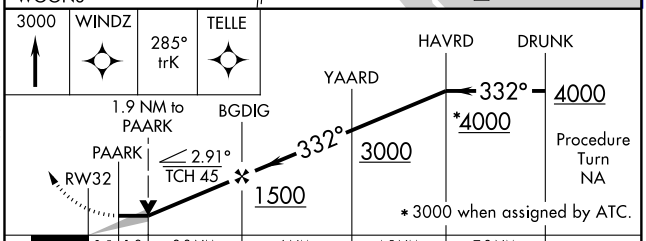
MISSED APPROACH: Climb to 3000 direct WINDZ and via 285° track to TELLE and hold.

ATIS		BOSTON APP CON		BOSTON TOWER			GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225	257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8	257.8			



ELEV 20





CATEGORY	A	B	C	D
LNAV MDA	820-1 800 (800-1)	820-1¼ 800 (800-1¼)	820-2¼ 800 (800-2¼)	820-2½ 800 (800-2½)
CIRCLING	960-1¼ 940 (1000-1¼)		960-2¾ 940 (1000-2¾)	960-3 940 (1000-3)

TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	10083
331°	TDZE	16
	Apt Elev	19

RNAV (GPS) RWY 33L

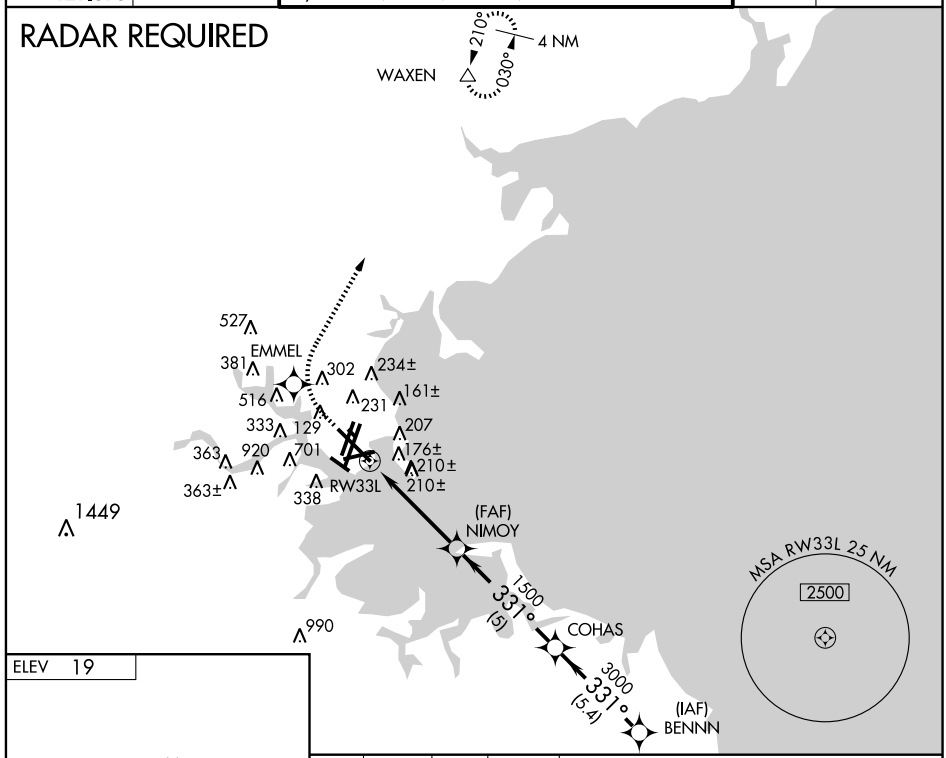
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

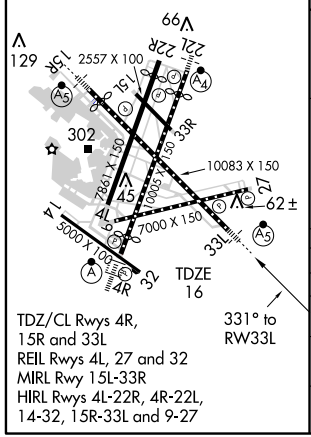
T A NA W — Baro-VNAV NA below -15°C (5°F). DME/DME RNP-0.3 NA. Cats C and D Circling not authorized west of Rwys 4L and 15R.

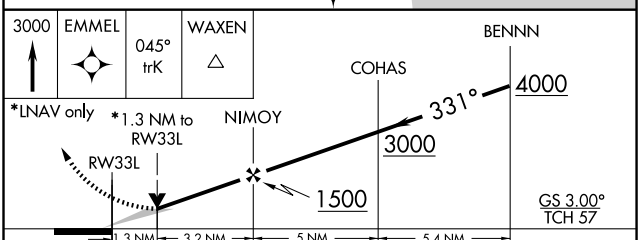
MALSR A5

MISSED APPROACH: Climb to 3000 direct EMMEL WP and via 045° track to WAXEN WP and hold.

ATIS		BOSTON APP CON		BOSTON TOWER			GND CON	CLNC DEL	
ARR	135.0	120.6	263.1	Rwys 4R-22L, 9-27	132.225	257.8	121.9	121.65	257.8
DEP	127.875			Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8	257.8			



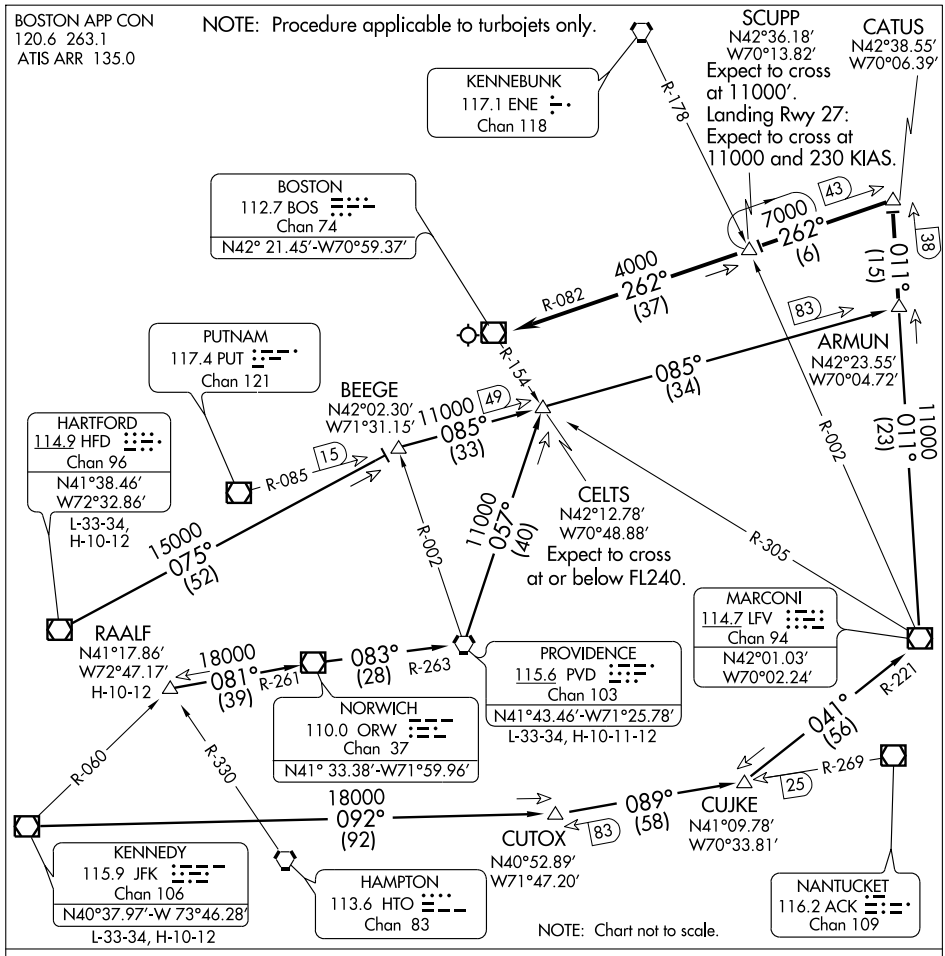




CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	480/50 464 (500-1)			
LNAV MDA	480/24 464 (500-½)		480/40 464 (500-¾)	480/50 464 (500-1)
CIRCLING	640-1 621 (700-1)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

SCUPP FOUR ARRIVAL

GENERAL EDWARD LAWRENCE LOGAN INTL
BOSTON, MASSACHUSETTS



HARTFORD TRANSITION (HFD.SCUPP4): From over HFD VOR/DME via HFD R-075 to BEEGE INT, then via PUT R-085 to ARMUN INT. Thence....

KENNEDY TRANSITION (JFK.SCUPP4): From over JFK VOR/DME via JFK R-092 to CUTOX INT, then via ACK R-269 to CUJKE INT, then via LFV R-221 to LFV VOR/DME, then via LFV R-011 to ARMUN INT. Thence....

PROVIDENCE TRANSITION (PVD.SCUPP4): From over the PVD VORTAC via PVD R-057 to CELTS INT, then via PUT R-085 to ARMUN INT. Thence....

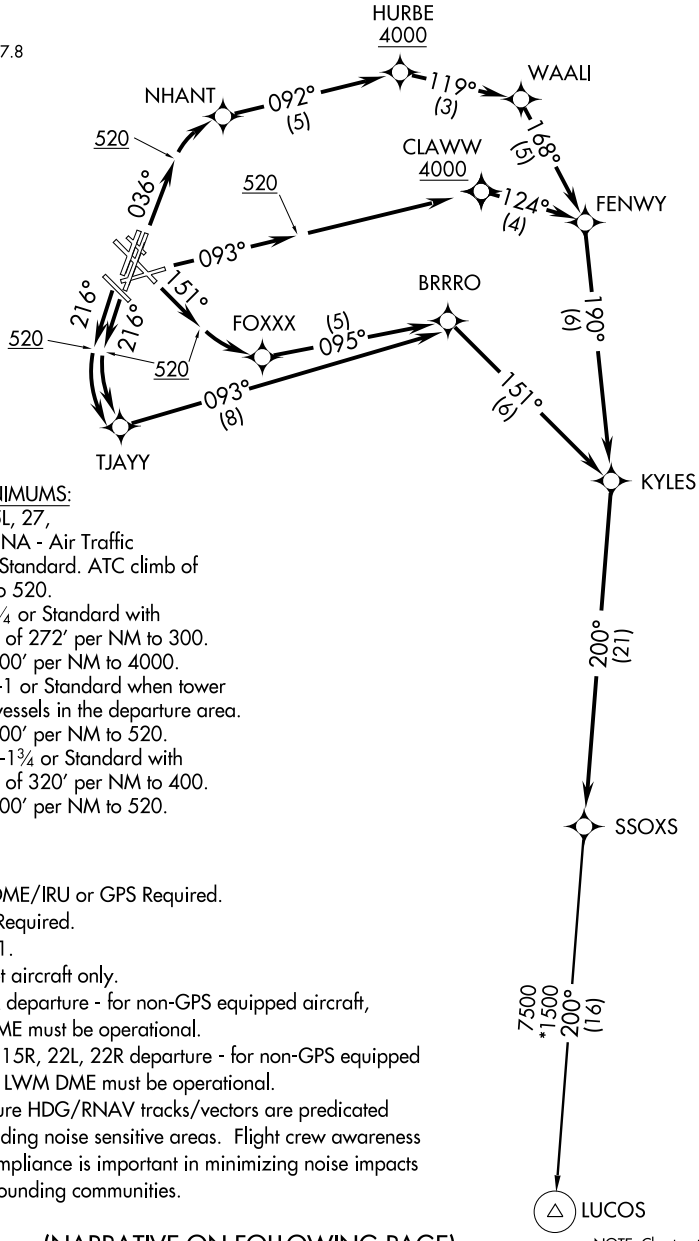
RAALF TRANSITION (RAALF.SCUPP4): From over RAALF INT via ORW R-261 to ORW VOR/DME, then via PVD R-263 to PVD VORTAC, then via PVD R-057 to CELTS INT, then via PUT R-085 to ARMUN INT. Thence....

....From over ARMUN INT via LFV VOR/DME R-011 to CATUS INT, then via BOS VOR/DME R-082 to SCUPP INT, then via BOS R-082 to BOS VOR/DME. Expect radar vectors to final approach course prior to BOS VOR/DME.

SSOXS ONE DEPARTURE (RNAV)

SL-58 (FAA) BOSTON, MASSACHUSETTS

ATIS DEP 127.875
CLNC DEL
121.65 257.8
GND CON
121.9
BOSTON TOWER
132.225 128.8 257.8
BOSTON DEP CON
133.0 343.6



TAKE-OFF MINIMUMS:
Rwy 4L, 14, 15L, 27, 32, 33L, 33R: NA - Air Traffic
Rwy 4R, 15R: Standard. ATC climb of 400′ per NM to 520.
Rwy 9: 300-1¼ or Standard with minimum climb of 272′ per NM to 300. ATC climb of 500′ per NM to 4000.
Rwy 22L: 300-1 or Standard when tower reports no tall vessels in the departure area. ATC climb of 400′ per NM to 520.
Rwy 22R: 300-1¾ or Standard with minimum climb of 320′ per NM to 400. ATC climb of 400′ per NM to 520.

NOTE: DME/DME/IRU or GPS Required.
NOTE: Radar Required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Rwy 4R departure - for non-GPS equipped aircraft, BOS DME must be operational.
NOTE: Rwy 9, 15R, 22L, 22R departure - for non-GPS equipped aircraft, LWM DME must be operational.
NOTE: Departure HDG/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4R: Climb heading 036° to 520 MSL, then climb to assigned altitude direct NHANT, and via track 092° to HURBE, cross HURBE at or above 4000, thence...

TAKE-OFF RUNWAY 9: Climb heading 093° to 520 MSL, then climb to assigned altitude direct CLAWW, cross CLAWW at or above 4000, thence....

TAKE-OFF RUNWAY 15R: Climb heading 151° to 520 MSL, then climb to assigned altitude direct FOXXX, thence...

TAKE-OFF RUNWAYS 22L/22R: Climb heading 216° to 520 MSL, then climb to assigned altitude direct TJAYY, thence...

. . . . via depicted route to SSOXS. Maintain 5000′ or lower assigned altitude.
Expect clearance to filed altitude/flight level ten (10) minutes after departure.

LUCOS TRANSITION (SSOXS1.LUCOS):

TAKE-OFF OBSTACLES:
RWY 4R: Light on pole and multiple trees beginning 1807′ from DER, 403′ left of centerline, up to 33′ AGL/79′ MSL. Ship 570′ from DER, on centerline, 50′ AGL/50′ MSL. Crane 2,001′ from DER, 434′ right of centerline, 101′ AGL/114′ MSL. Mobile crane 2009′ from DER, 206′ right of centerline, 114′ AGL/134 MSL.
RWY 9: Antenna on standpipe and tank beginning 5878′ from DER, 1429′ left of centerline, up to 138′ AGL/217′ MSL. Ship 763′ from DER, on centerline, 65′ AGL/65′ MSL.
RWY 15R: Sign 45′ from DER, 267′ right of centerline, 6′ AGL, 16′ MSL.
RWY 22L: RIG 2441′ from DER, 35′ left of centerline, 176′ AGL/176′ MSL. Obstruction light pole 3586′ from DER, 926′ left of centerline, 108′ AGL/128′ MSL. Mobile crane 3676′ from DER, 440′ right of centerline, 122′ AGL/145′ MSL.
RWY 22R: RIG, 4586′ from DER, 1535′ left of centerline, 176′ AGL/176′ MSL. RIG 4064′ from DER, 8′ right of centerline, 176′ AGL/176′ MSL. Stacks 1.3 NM from DER, 1598′ right of centerline, 255′ AGL/278′ MSL.

NE-1, 17 DEC 2009 to 14 JAN 2010

VOR/DME BOS	APP CRS	Rwy ldg	N/A
112.7	310°	TDZE	N/A
Chan 74		Apt Elev	19

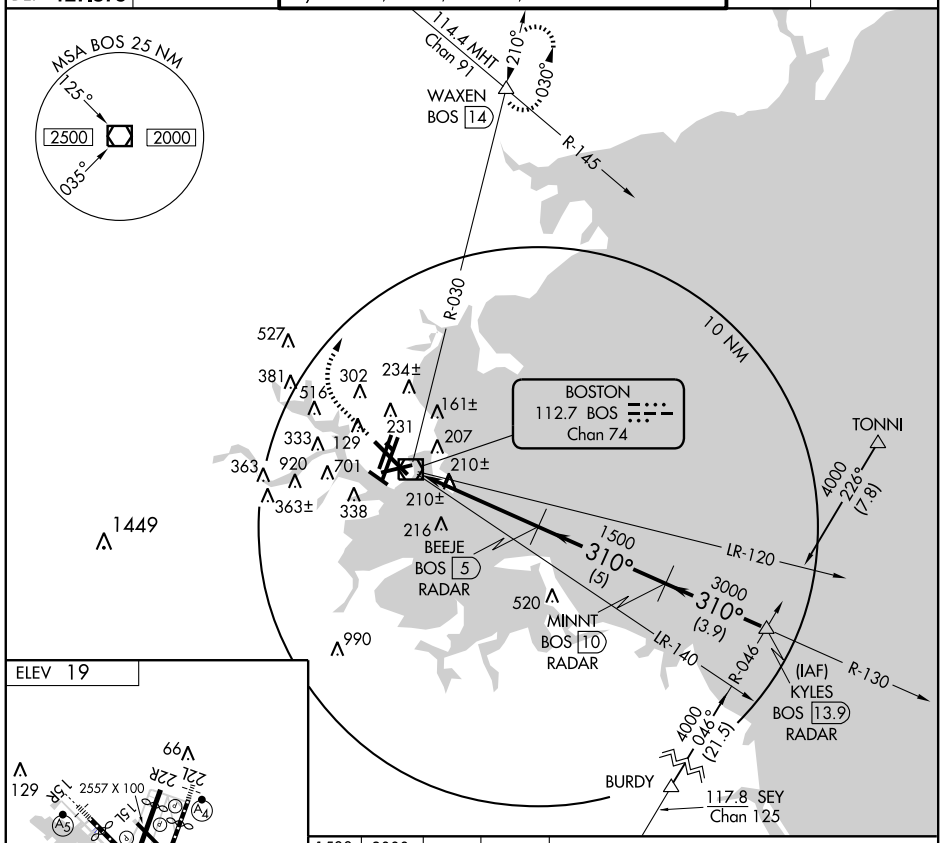
VOR/DME or GPS-A

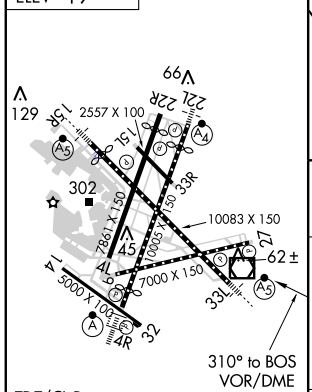
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

Circling not authorized for CATs C and D Rwy 4L clockwise to Rwy 15R.

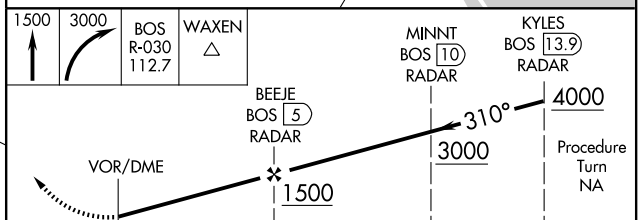
MISSED APPROACH: Climb to 1500, then climbing right turn to 3000 via BOS R-030 to WAXEN Int/BOS 14 DME and hold.

ATIS	BOSTON APP CON	BOSTON TOWER		GND CON	CLNC DEL
ARR 135.0	120.6 263.1	Rwys 4R-22L, 9-27	132.225 257.8	121.9	121.65 257.8
DEP 127.875		Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8 257.8		





TDZ/CL Rwys
4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27



CATEGORY	A	B	C	D
CIRCLING	640-1 621 (700-1)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

NE-1, 17 DEC 2009 to 14 JAN 2010

VOR/DME BOS	APP CRS	Rwy ldg 9201
112.7	144°	TDZE 17
Chan 74		Apt Elev 19

VOR/DME RWY 15R

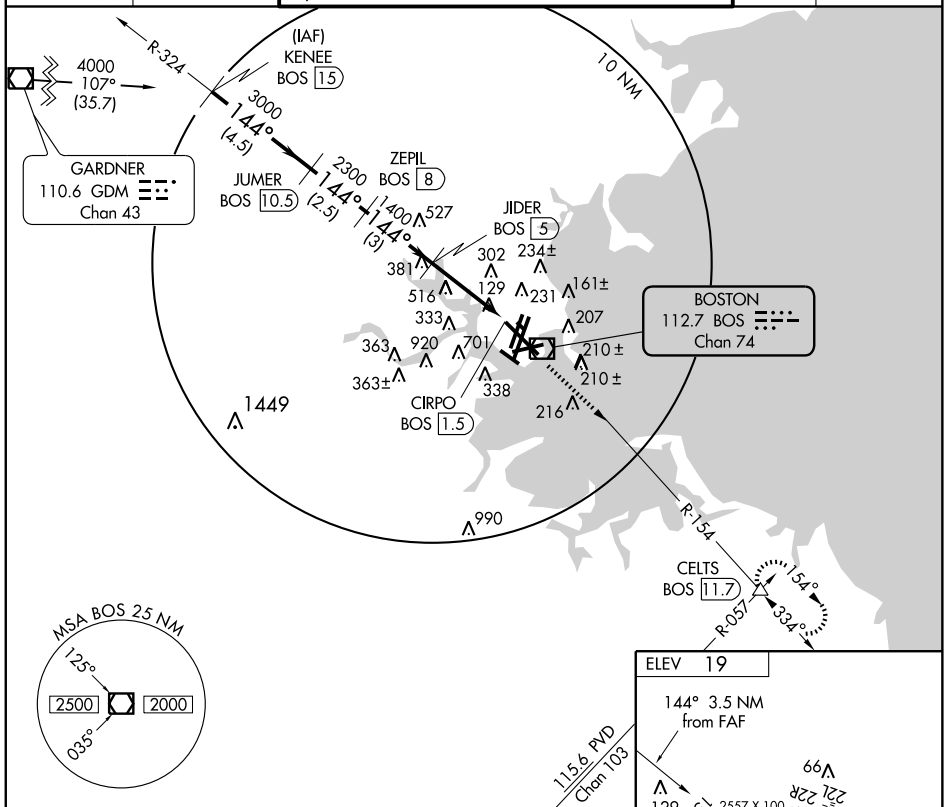
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

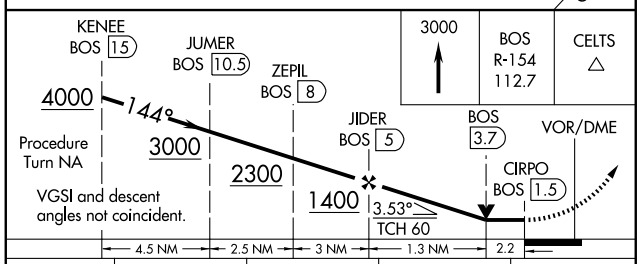
For inoperative MALSR, increase S-15R Cat A visibility to RVR 5000.
Cat C and D circling not authorized west of Rwys 4L and 15R.

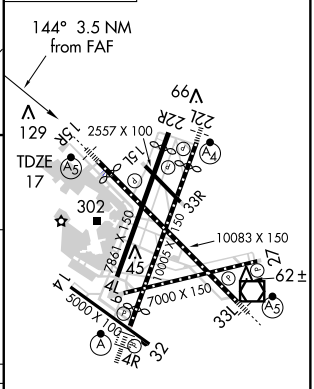
MALSR

MISSED APPROACH: Climb to 3000 via BOS R-154 to CELTS Int/BOS 11.7 DME and hold.

ATIS	BOSTON APP CON	BOSTON TOWER	GND CON	CLNC DEL
ARR 135.0 DEP 127.875	120.6 263.1	Rwys 4R-22L, 9-27 132.225 257.8 Rwys 4L-22R, 14-32, 15R-33L, 15L-33R 128.8 257.8	121.9	121.65 257.8







CATEGORY	A	B	C	D
S-15R	780/40 763 (800-¾)		780-1¾ 763 (800-1¾)	780-2 763 (800-2)
CIRCLING	780-1 761 (800-1)	780-1¼ 761 (800-1¼)	780-2¼ 761 (800-2¼)	780-2½ 761 (800-2½)

TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27, and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L, and 9-27.

VOR/DME BOS	APP CRS	Rwy ldg 7000
112.7	260°	TDZE 17
Chan 74		Apt Elev 19

VOR/DME RWY 27

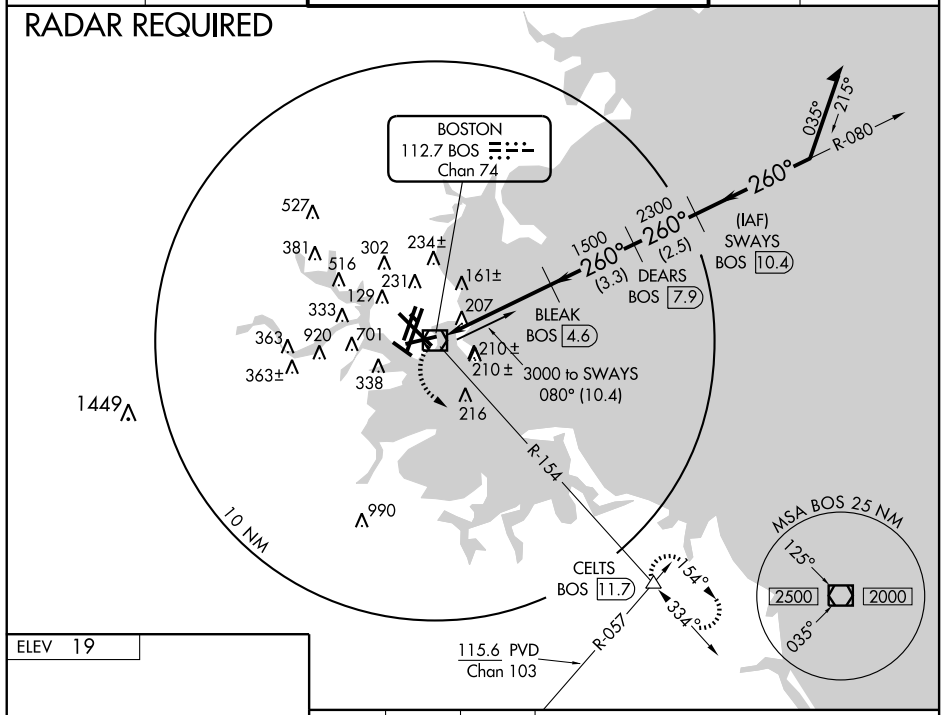
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

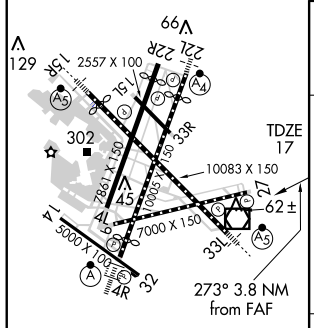
Circling not authorized CATs C and D west of Rwys 4L and 15R.

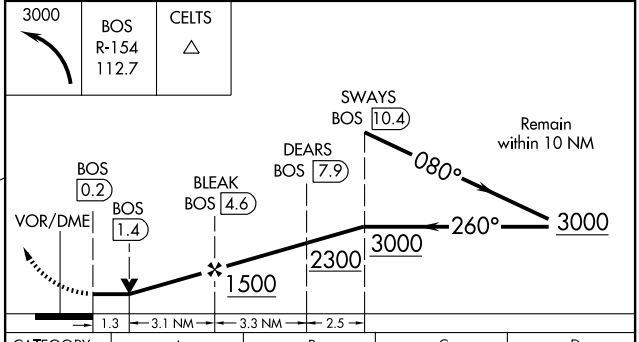
MISSED APPROACH: Climbing left turn to 3000 via BOS R-154 to CELTS Int and hold.

ATIS	BOSTON APP CON	BOSTON TOWER	GND CON	CLNC DEL
ARR 135.0 DEP 127.875	120.6 263.1	Rwys 4R-22L, 9-27 132.225 257.8 Rwys 4L-22R, 14-32, 15R-33L, 15L-33R 128.8 257.8	121.9	121.65 257.8

RADAR REQUIRED







CATEGORY	A	B	C	D
S-27	460-1½ 443 (500-1½)			
CIRCLING	640-1½ 621 (700-1½)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L,

NE-1, 17 DEC 2009 to 14 JAN 2010

VOR/DME BOS	APP CRS	Rwy ldg	10,083
112.7	342°	TDZE	16
Chan 74		Apt Elev	19

VOR/DME RWY 33L

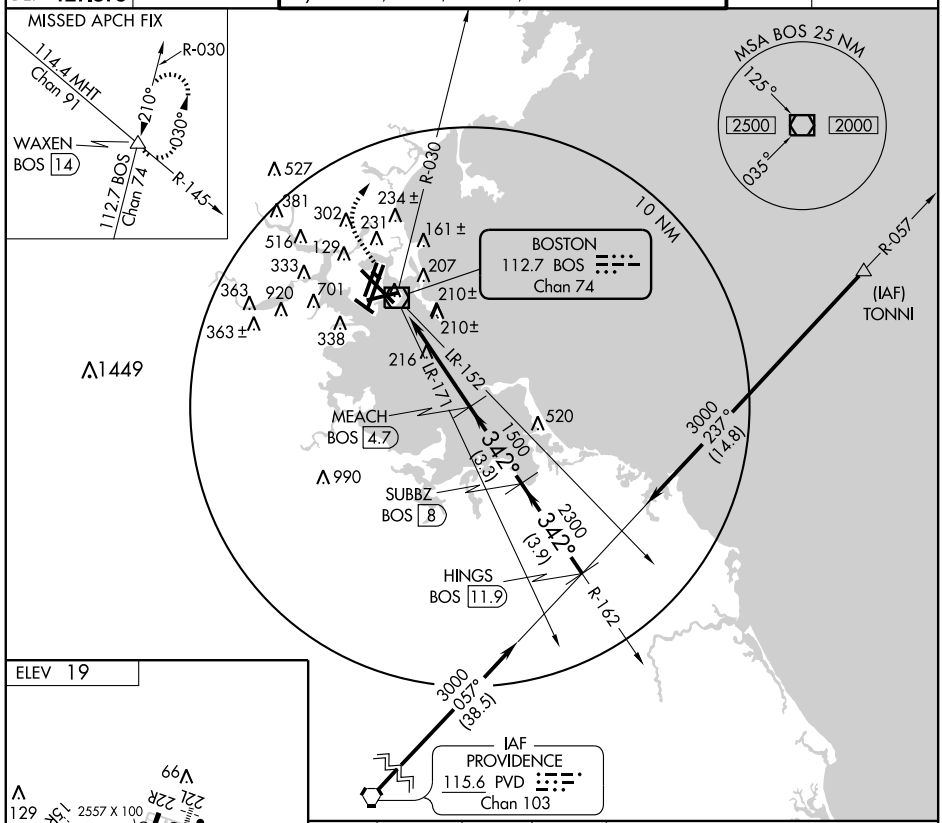
BOSTON/GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

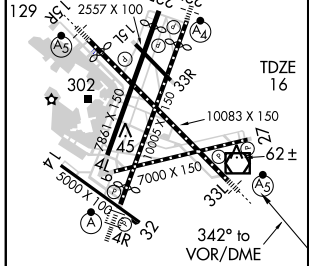
Circling not authorized for CATs C and D west of Rwys 4L and 15R.

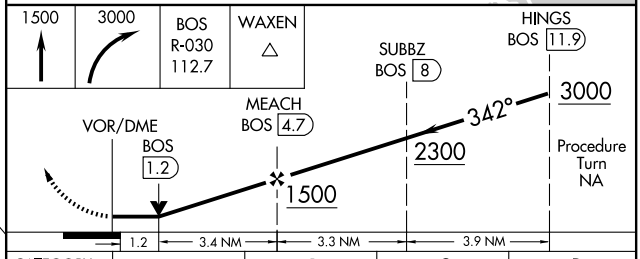
MALSR

MISSED APPROACH: Climb to 1500, then climbing right turn to 3000 via BOS R-030 to WAXEN Int/BOS 14 DME and hold.

ATIS	BOSTON APP CON	BOSTON TOWER		GND CON	CLNC DEL
ARR 135.0	120.6 263.1	Rwys 4R-22L, 9-27	132.225 257.8	121.9	121.65 257.8
DEP 127.875		Rwys 4L-22R, 14-32, 15R-33L, 15L-33R	128.8 257.8		







TDZ/CL Rwys 4R, 15R and 33L
REIL Rwys 4L, 27 and 32
MIRL Rwy 15L-33R
HIRL Rwys 4L-22R, 4R-22L, 14-32, 15R-33L and 9-27

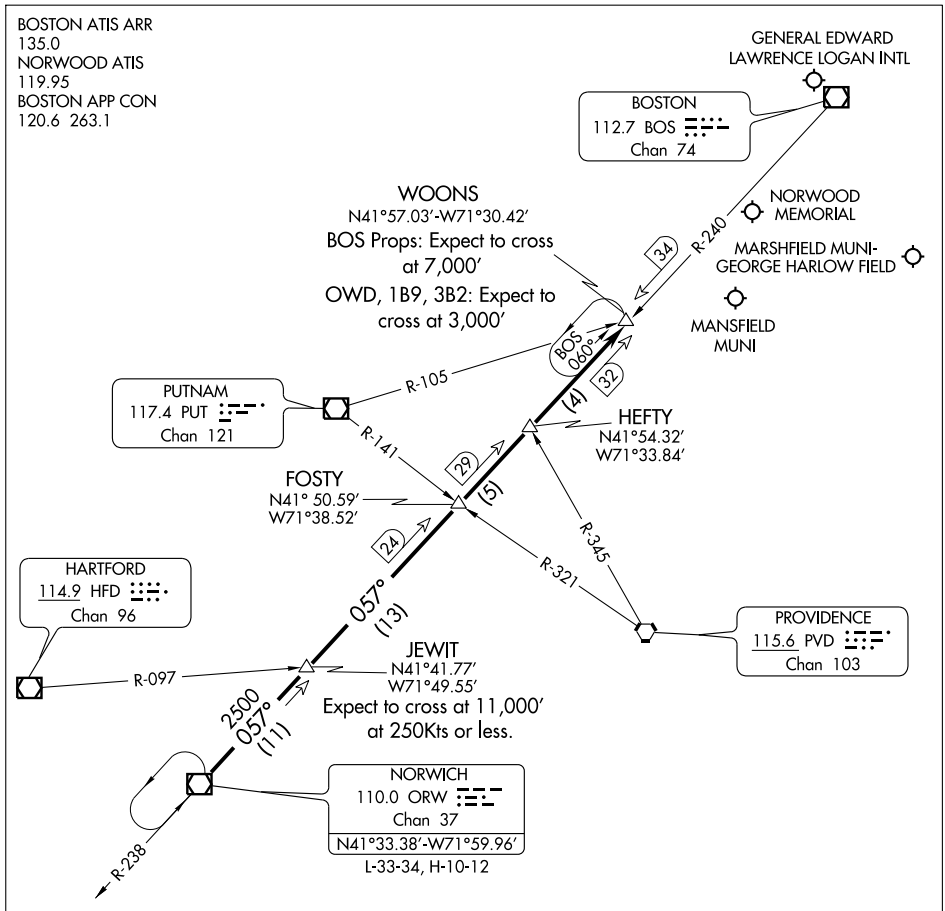
CATEGORY	A	B	C	D
S-33L	480/24 464 (500-½)		480/40 464 (500-¾)	480/50 464 (500-1)
CIRCLING	640-1 621 (700-1)		640-1¾ 621 (700-1¾)	640-2 621 (700-2)

(ORW.WOONS1) 09239

WOONS ONE ARRIVAL

ST-58 (FAA)

BOSTON, MASSACHUSETTS



NOTE: Chart not to scale

NOTE: Applicable to props landing BOS and all aircraft landing OWD, 1B9 and GHG. Applicable 11,000 feet and above.

From over ORW VOR/DME via ORW R-057 to WOONS INT. Expect radar vectors to final.

ATIS DEP 127.875
CLNC DEL
121.65 257.8
GND CON
121.9
BOSTON TOWER
132.225 128.8 257.8
BOSTON DEP CON
133.0 343.6

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 27: Climb heading 273° to 760 MSL, then climbing left turn on 235° course to WYLYY, thence....

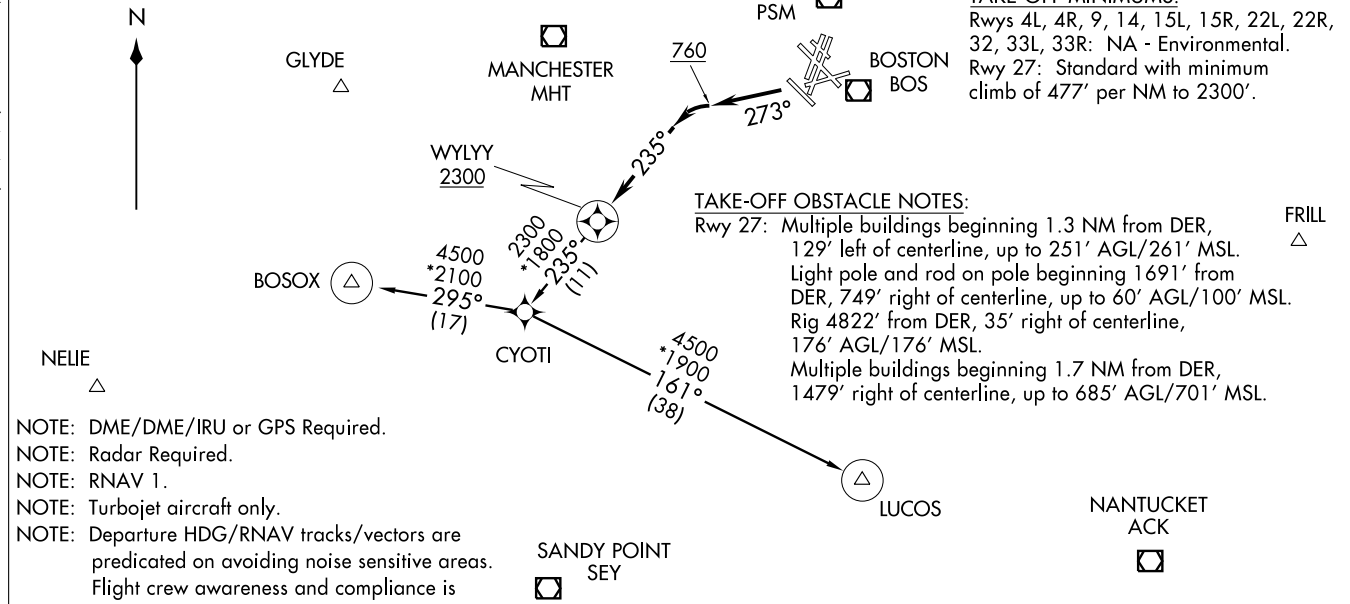
....via depicted route. Cross WYLYY at or above 2300′. Maintain 5000′ or lower assigned altitude. Expect clearance to filed altitude/flight level ten (10) minutes after departure.

BOSOX TRANSITION (WYLYY7.BOSOX):

LUCOS TRANSITION (WYLYY7.LUCOS):

TAKE-OFF MINIMUMS:
Rwys 4L, 4R, 9, 14, 15L, 15R, 22L, 22R, 32, 33L, 33R: NA - Environmental.
Rwy 27: Standard with minimum climb of 477′ per NM to 2300′.

TAKE-OFF OBSTACLE NOTES:
Rwy 27: Multiple buildings beginning 1.3 NM from DER, 129′ left of centerline, up to 251′ AGL/261′ MSL.
Light pole and rod on pole beginning 1691′ from DER, 749′ right of centerline, up to 60′ AGL/100′ MSL.
Rig 4822′ from DER, 35′ right of centerline, 176′ AGL/176′ MSL.
Multiple buildings beginning 1.7 NM from DER, 1479′ right of centerline, up to 685′ AGL/701′ MSL.



NOTE: DME/DME/IRU or GPS Required.
NOTE: Radar Required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Departure HDG/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

NOTE: Chart not to scale.

NDB CQX 279	APP CRS 114°	Rwy ldg N/A TDZE N/A Apt Elev 68

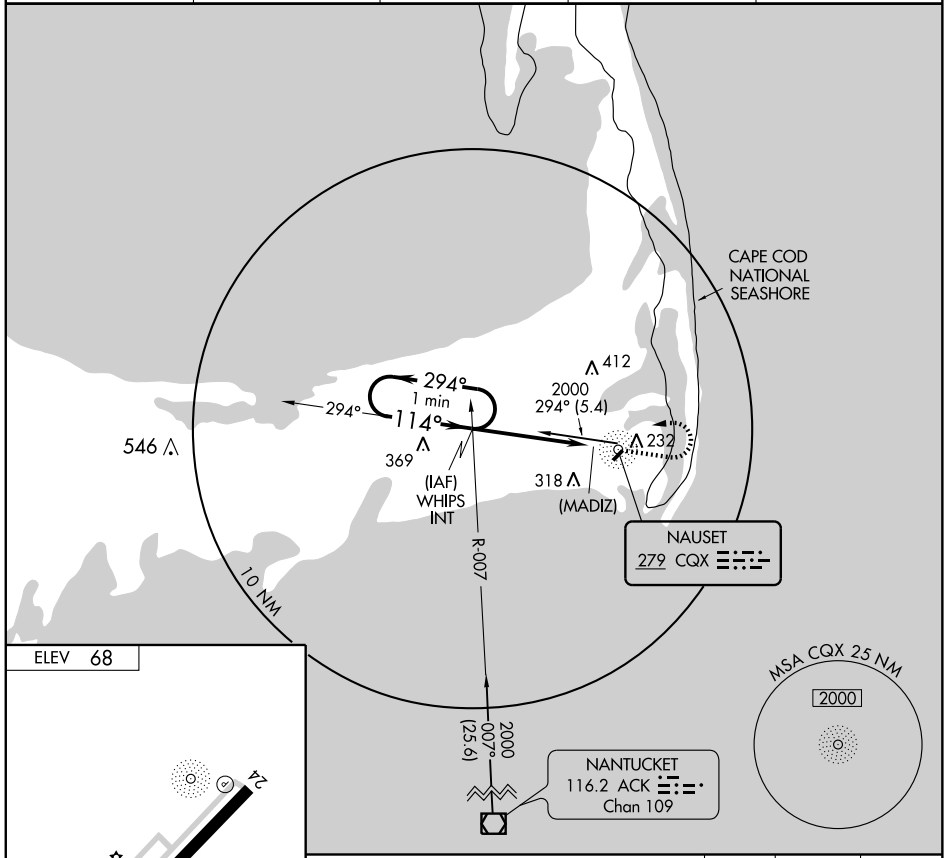
NDB or GPS-A
CHATHAM MUNI (CQX)

If local altimeter setting not received, use Hyannis altimeter setting and increase all MDA's 40 feet.

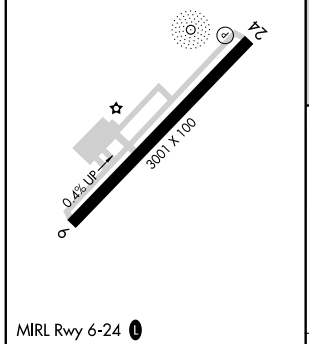
NA

MISSED APPROACH: Climb to 800 then climbing left turn to 2000 to WHIPS Int/CQX 294° bearing/ACK R-007 and hold.

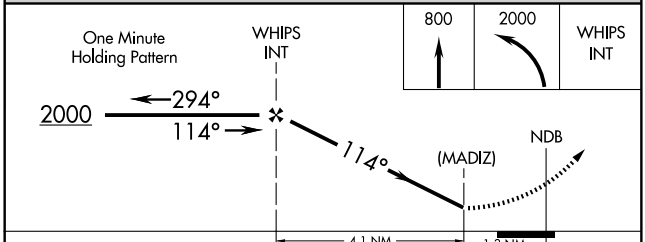
ASOS	CAPE APP CON ★	CLNC DEL	UNICOM	
135.875	118.2	127.3	122.8 (CTAF)	122.95 L



ELEV 68



MIRL Rwy 6-24 L

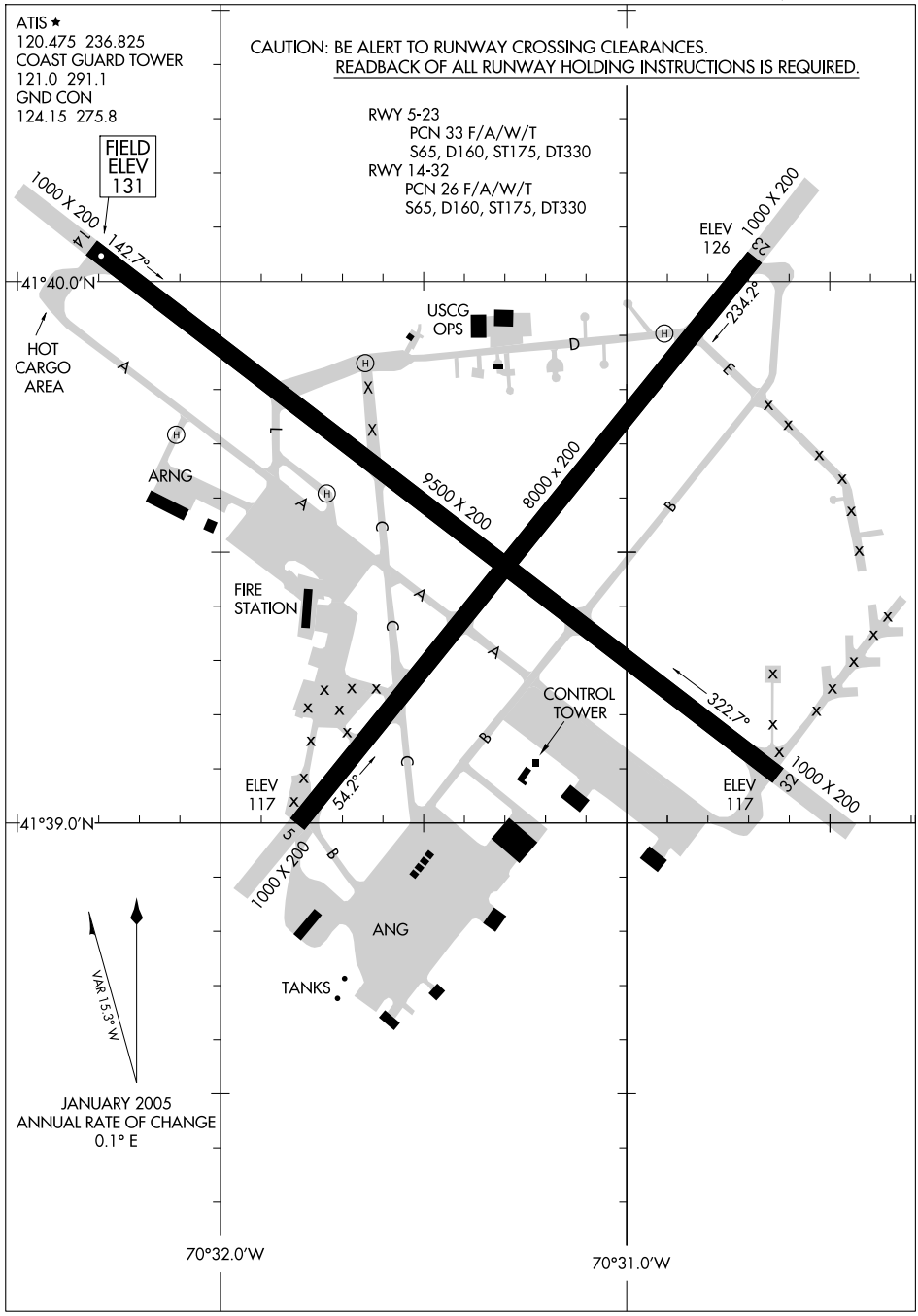


FAF to MAP 4.1 NM				
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

CATEGORY	A	B	C	D
CIRCLING	580-1½ 512 (600-1½)		660-1½ 592 (600-1½)	660-2 592 (600-2)

AIRPORT DIAGRAM

FALMOUTH/CAPE COD COAST GUARD AIR STATION (FMH)
AL-10362 (FAA)
FALMOUTH, MASSACHUSETTS



NE-1, 17 DEC 2009 to 14 JAN 2010

FALMOUTH, MASSACHUSETTS

AL-10362 (FAA)

LOC I-FMH	APP CRS	Rwy ldg	8000
110.1	234°	TDZE	125
		Apt Elev	130

COPTER ILS or LOC/DME RWY 23

FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

NA

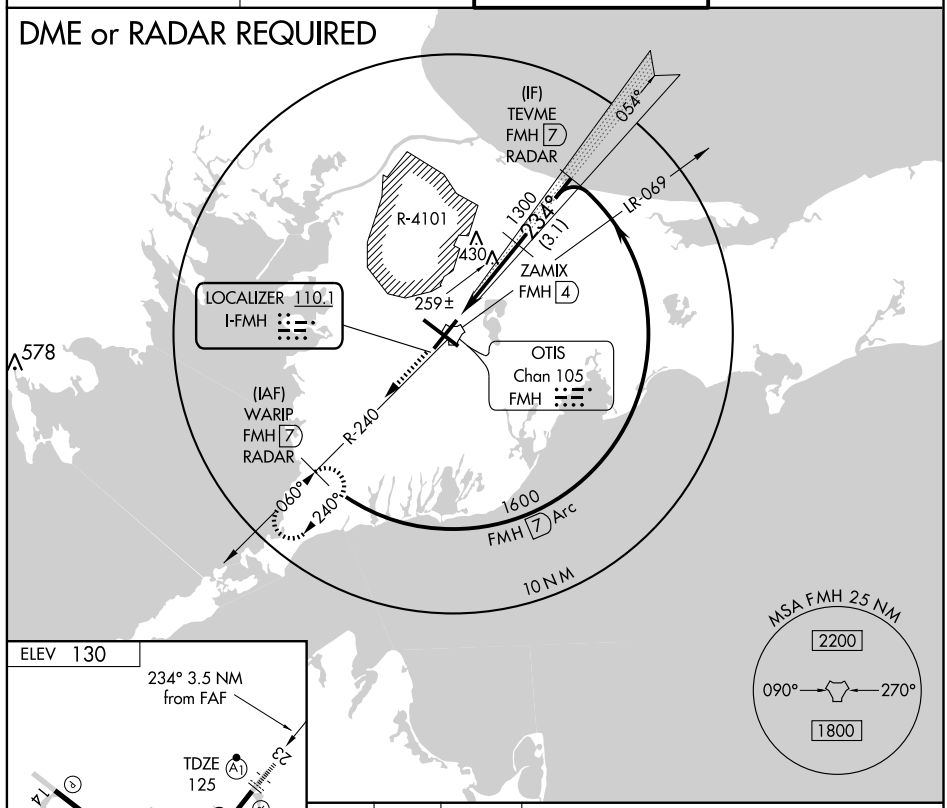
TACAN required. United States Coast Guard use only. For inoperative ALSF-1, increase S-ILS-23 and S-LOC 23 visibility to RVR 2400. DME from FMH TACAN. Simultaneous reception of I-FMH and FMH DME required.

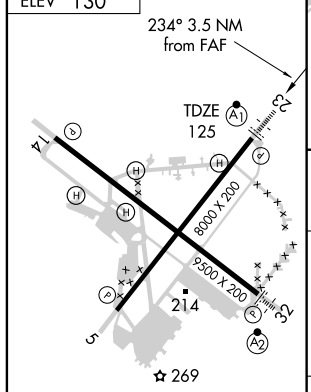
ALSF-1 (A1)

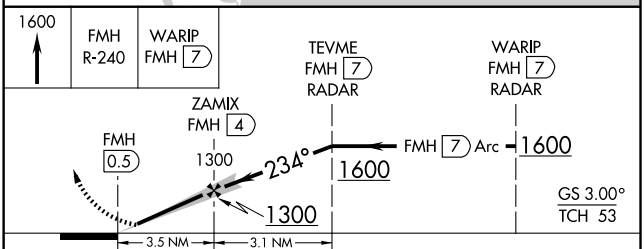
MISSED APPROACH: Climb to 1600 via FMH R-240 to WARIP/FMH 7 DME/RADAR and hold.

ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8

DME or RADAR REQUIRED







CATEGORY	COPTER	
S-ILS 23	225/12	100 (100-¼)
S-LOC 23	520/12	395 (400-¼)

HIRL Rwy 5-23, 14-32

NE-1. 17 DEC 2009 to 14 JAN 2010

FALMOUTH, MASSACHUSETTS

AL-10362 (FAA)

LOC I-FMH	APP CRS	Rwy ldg	8000
110.1	234°	TDZE	125
		Apt Elev	130

ILS or LOC RWY 23

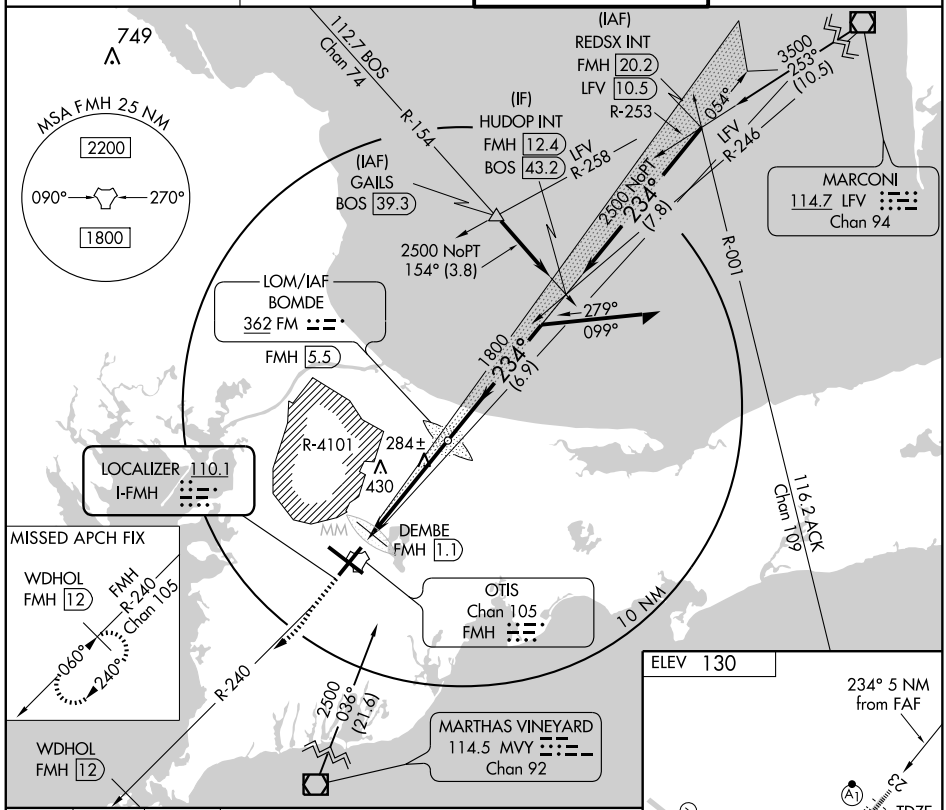
FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

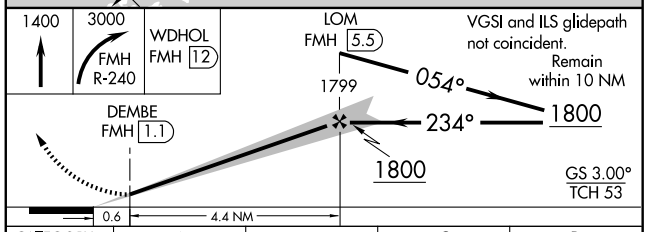
Circling NA NE of Rwy 14 and NW of Rwy 23.
TACAN Required.

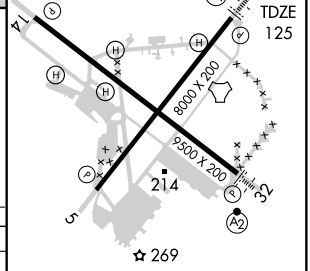
ALSF-1

MISSED APPROACH: Climb to 1400 then climbing right turn to 3000 via FMH R-240 to WDHOL/12 DME and hold.

ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8







HIRL Rwy 5-23, 14-32

CATEGORY	A	B	C	D
S-ILS 23	325/24 200 (200-½)			
S-LOC 23	640/24 515 (600-½)		640/50 515 (600-1)	640/60 515 (600-1¼)
CIRCLING	640-1 510 (600-1)		640-1½ 510 (600-1½)	680-2 550 (600-2)

FAF to MAP 4.4 NM

Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC I-BNX	APP CRS	Rwy ldg	9500
109.9	322°	TDZE	117
		Apt Elev	130

ILS or LOC RWY 32

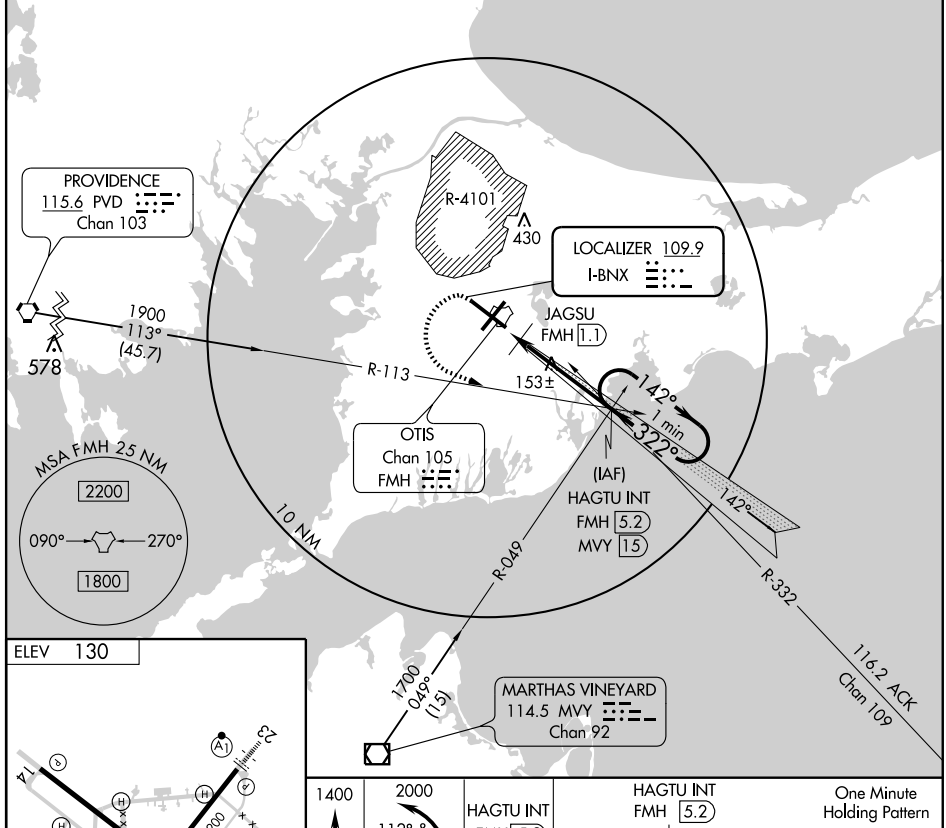
FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

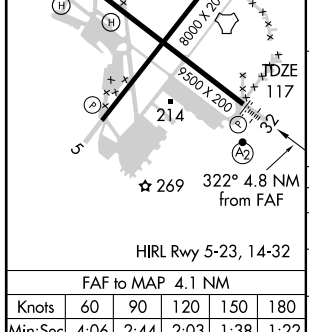
Inoperative table does not apply to S-LOC 32 Cat C.
Circling NA NE of Rwy 14 and NW of Rwy 23.

SALSF (A2)

MISSED APPROACH: Climb to 1400 then climbing left turn to 2000 via heading 112° and I-BNX SE course to HAGTU INT/FMH 5.2 DME and hold.

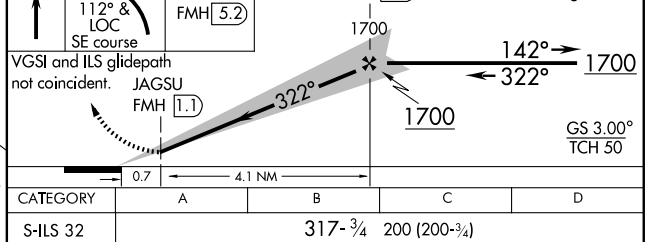
ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8





HIRL Rwy 5-23, 14-32

FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22



CATEGORY	A	B	C	D
S-ILS 32	317- ¾ 200 (200-¾)			
S-LOC 32	540- ¾ 423 (500-¾)		540-1¼ 423 (500-1¼)	
CIRCLING	580-1 450 (500-1)		580-1½ 450 (500-1½)	680-2 550 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

NDB FM	APP CRS	Rwy ldg	8000
362	234°	TDZE	125
		Apt Elev	130

NDB RWY 23

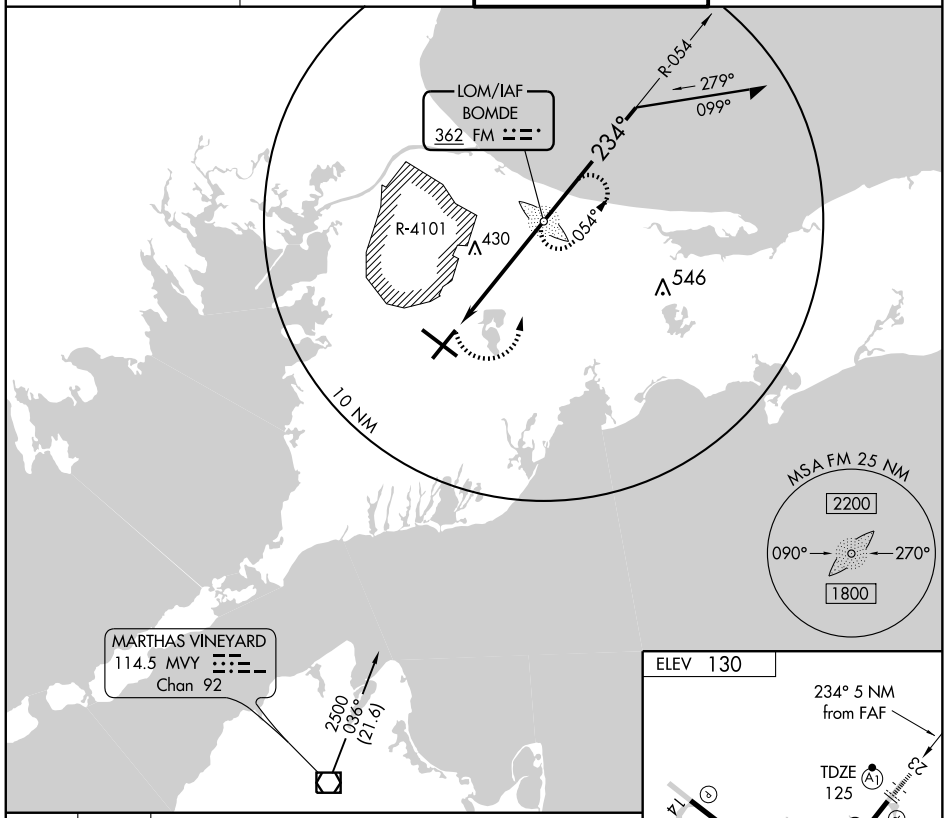
FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

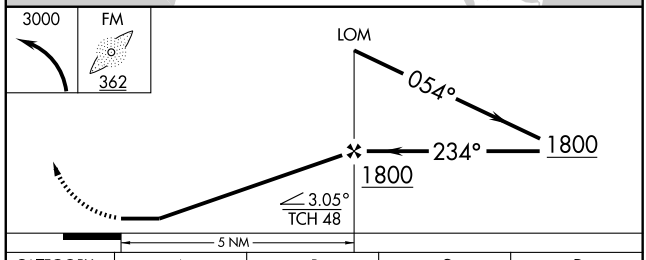
Circling NA NE of Rwy 14 and NW of Rwy 23.

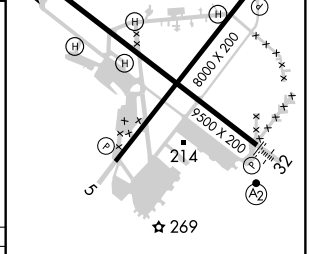
ALSF-1

MISSED APPROACH: Climbing left turn to 3000 direct FM LOM and hold.

ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8







HIRL Rwy 5-23, 14-32

CATEGORY	A	B	C	D
S-23	780/40	655 (700-¾)	780/60 655 (700-1¼)	780 - 1¾ 655 (700-1¾)
CIRCLING	780-1	650 (700-1)	780-1¾ 650 (700-1¾)	780-2 650 (700-2)

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:01	3:21	2:31	2:00	1:40

NE-1. 17 DEC 2009 to 14 JAN 2010

FALMOUTH, MASSACHUSETTS

AL-10362 (FAA)

TACAN FMH Chan 105	APP CRS 063°	Rwy ldg 8000 TDZE 117 Apt Elev 130

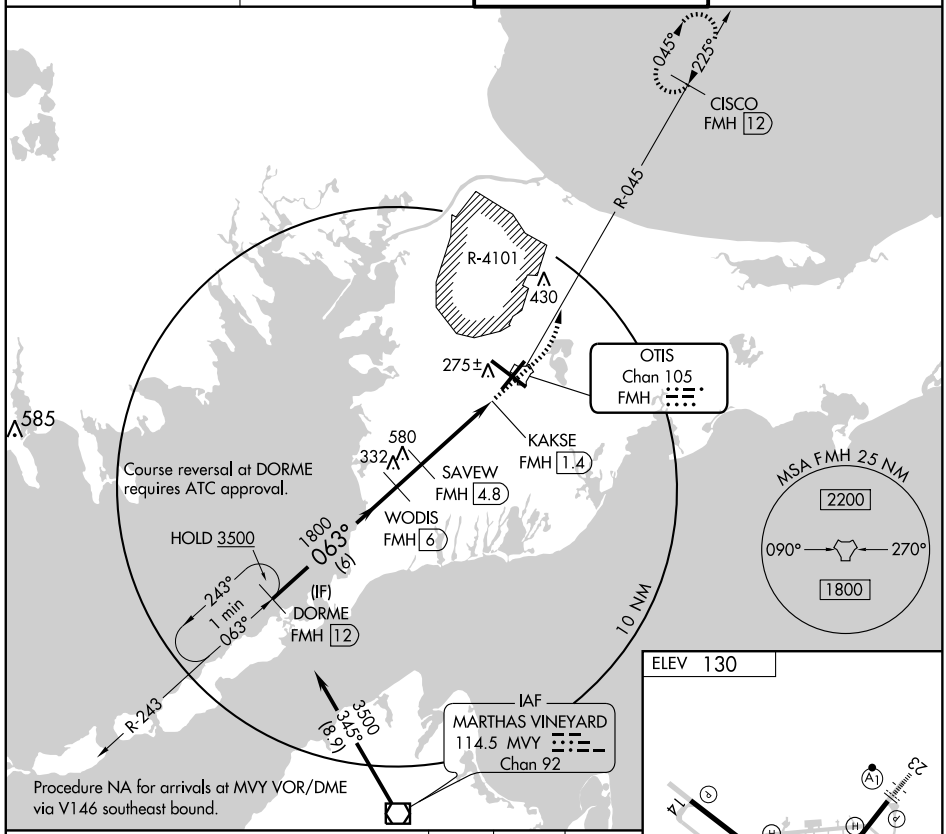
TACAN RWY 5

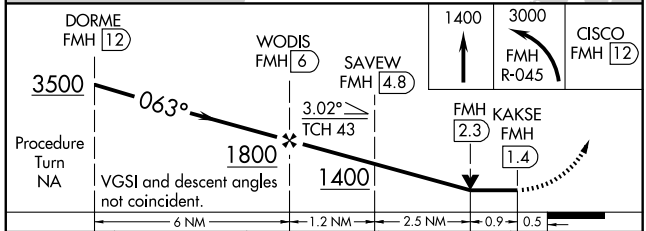
FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

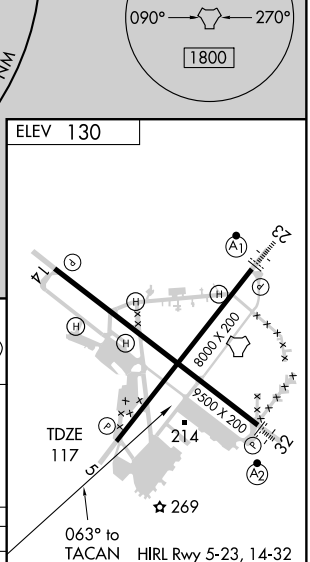
Circling NA NE of Rwy 14 and NW of Rwy 23.

MISSED APPROACH: Climb to 1400 then climbing left turn to 3000 via FMH TACAN R-045 to CISCO/12 DME and hold.

ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8







CATEGORY	A	B	C	D
S-5	540-1 423 (500-1)		540-1¼ 423 (500-1¼)	
CIRCLING	580-1 450 (500-1)		580-1½ 450 (500-1½)	680-2 550 (600-2)

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

NE-1. 17 DEC 2009 to 14 JAN 2010

TACAN FMH Chan 105	APP CRS 134°	Rwy ldg 9500 TDZE 130 Apt Elev 130

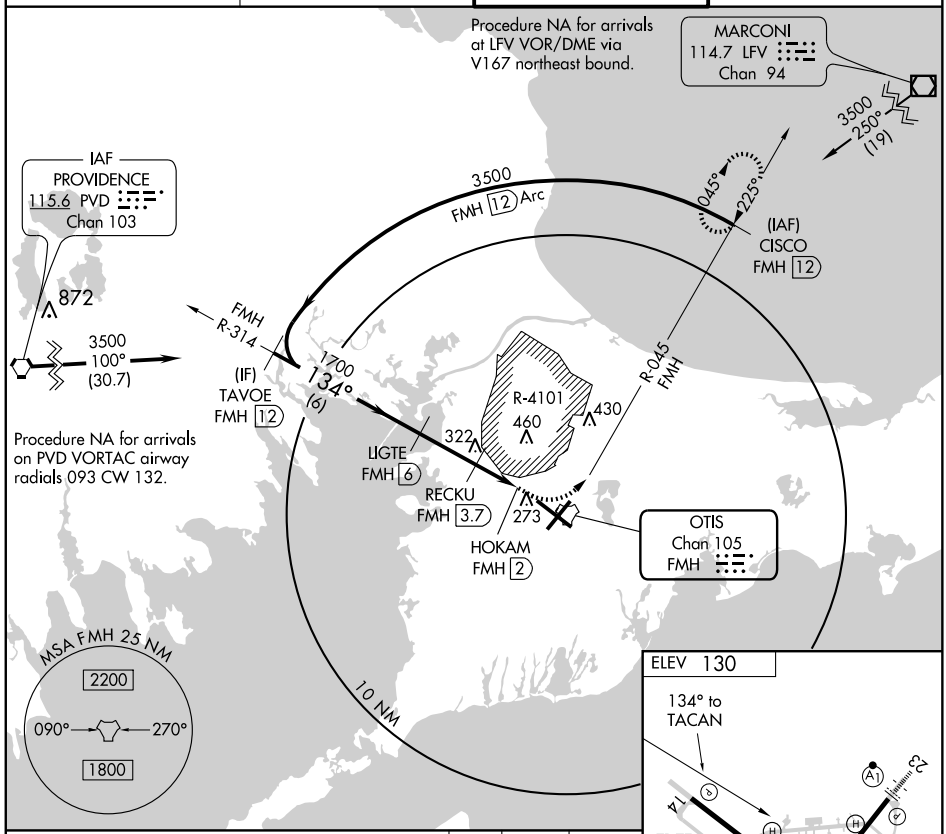
TACAN RWY 14

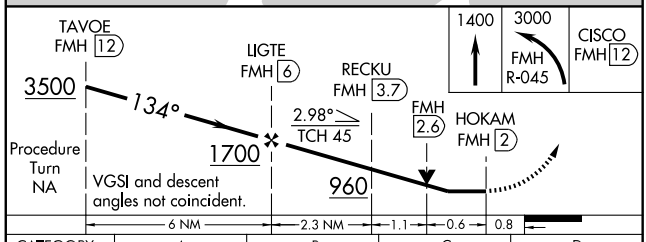
FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

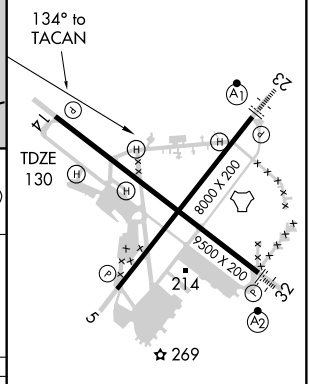
Circling NA NE of Rwy 14 and NW of Rwy 23.

MISSED APPROACH: Climb to 1400 then climbing left turn to 3000 via FMH TACAN R-045 to CISCO/12 DME and hold.

ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8







HIRL Rwy 5-23, 14-32

CATEGORY	A	B	C	D
S-14	540-1 410 (500-1)		540-1¼ 410 (500-1¼)	
CIRCLING	580-1 450 (500-1)		580-1½ 450 (500-1½)	680-2 550 (600-2)

FAF to MAP 4 NM					
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

NE-1. 17 DEC 2009 to 14 JAN 2010

FALMOUTH, MASSACHUSETTS

AL-10362 (FAA)

TACAN FMH Chan 105	APP CRS 222°	Rwy ldg 8000 TDZE 125 Apt Elev 130

TACAN RWY 23

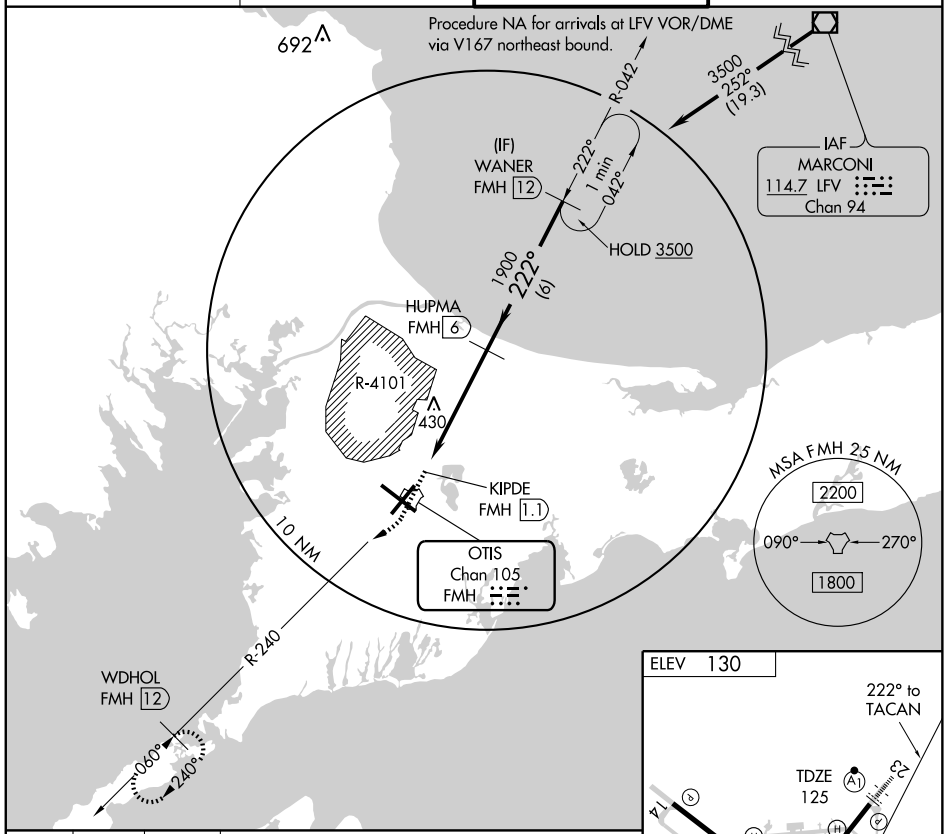
FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

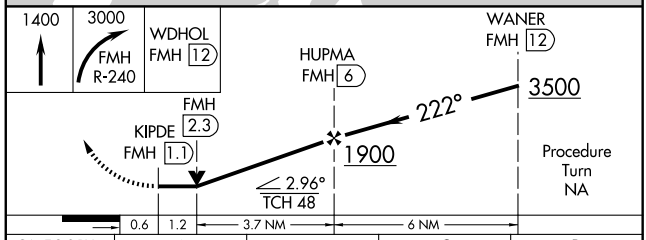
Circling NA NE of Rwy 14 and NW of Rwy 23.

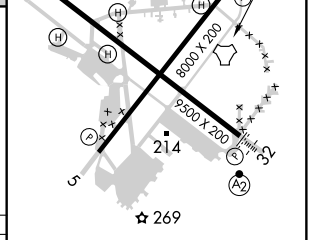
ALSF-1

MISSED APPROACH: Climb to 1400 then climbing right turn to 3000 via FMH TACAN R-240 to WDHOL/FHM 12 DME and hold.

ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8







HIRL Rwy 5-23, 14-32

CATEGORY	A	B	C	D
S-23	740/24 615 (700-½)		740/60 615 (700-1¼)	740-1½ 615 (700-1½)
CIRCLING	740-1 610 (700-1)		740-1¾ 610 (700-1¾)	740-2 610 (700-2)

FAF to MAP 4.9 NM

Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

NE-1. 17 DEC 2009 to 14 JAN 2010

TACAN FMH Chan 105	APP CRS 336°	Rwy ldg 9500 TDZE 117 Apt Elev 130

TACAN RWY 32

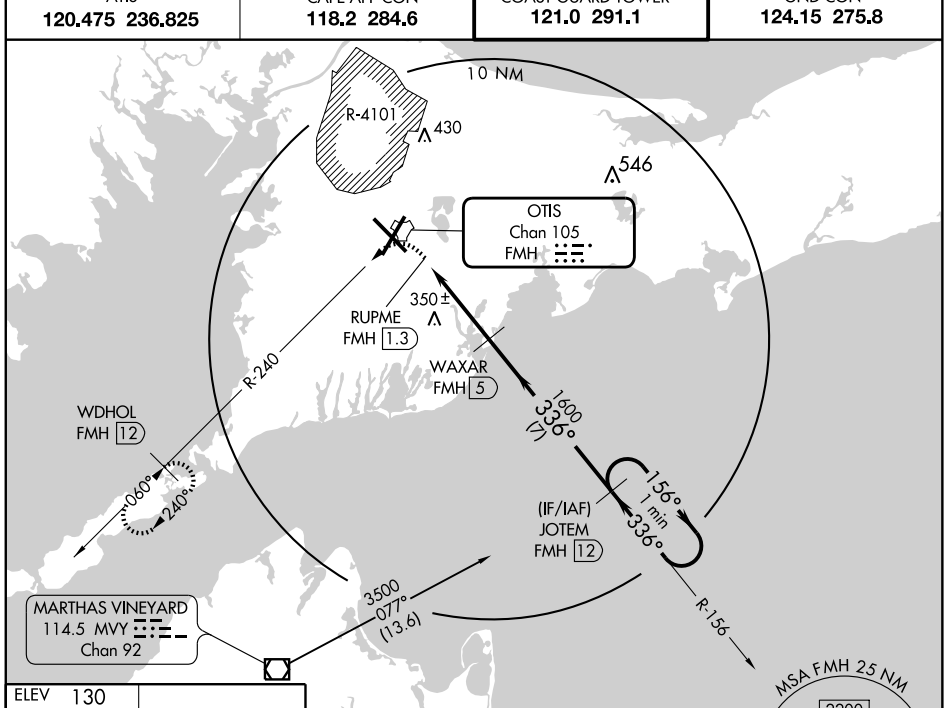
FALMOUTH/ CAPE COD COAST GUARD AIR STATION (FMH)

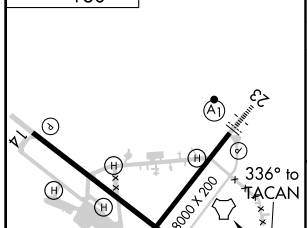
Inoperative table does not apply to Cat C.
Circling NA NE of Rwy 14 and NW of Rwy 23.

SALSF (A2)

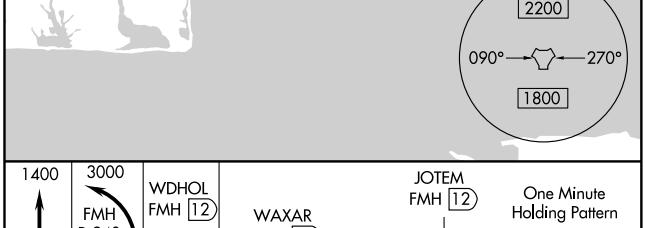
MISSED APPROACH: Climb to 1400 then climbing left turn to 3000 via FMH R-240 to WDHOL/12 DME and hold.

ATIS ★	CAPE APP CON	COAST GUARD TOWER	GND CON
120.475 236.825	118.2 284.6	121.0 291.1	124.15 275.8





HIRL Rwy 5-23, 14-32



FAF to MAP 3.7 NM					
Knots	60	90	120	150	180
Min:Sec	3:42	2:28	1:51	1:29	1:14

CATEGORY	A	B	C	D
S-32	620-¾ 503 (500-¾)		620-1½ 503 (500-1½)	
CIRCLING	620-1 490 (500-1)		620-1½ 490 (500-1½)	680-2 550 (600-2)

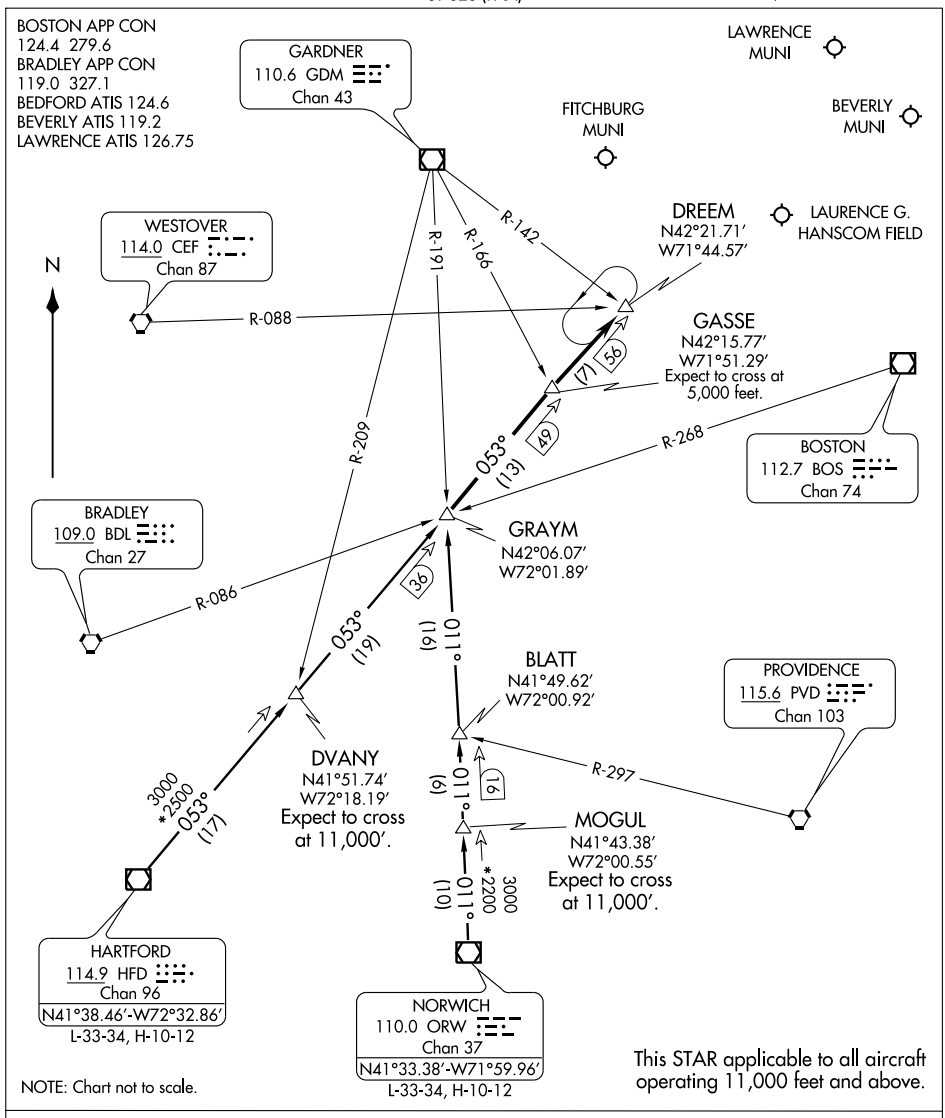
NE-1. 17 DEC 2009 to 14 JAN 2010

(GRAYM.GRAYM2) 09183

GRAYM TWO ARRIVAL

ST-626 (FAA)

BEDFORD, MASSACHUSETTS



HARTFORD TRANSITION (HFD.GRAYM2): From over HFD VOR/DME via HFD R-053 to GRAYM INT. Thence. . . .

NORWICH TRANSITION (ORW.GRAYM2): From over ORW VOR/DME via ORW R-011 to GRAYM INT. Thence. . . .

. . . . From over GRAYM INT via HFD VOR/DME R-053 to DREEM INT, then direct destination airport. Expect radar vectors to final approach course.

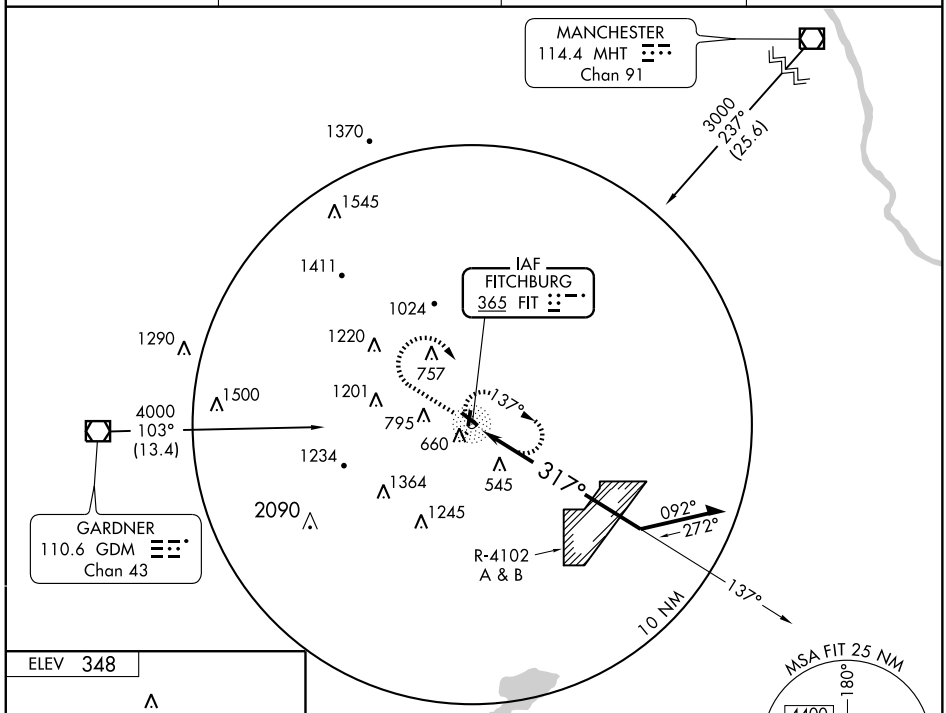
NE-1, 17 DEC 2009 to 14 JAN 2010

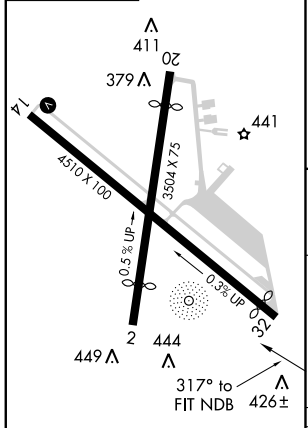
NDB FIT 365	APP CRS 317°	Rwy ldg N/A TDZE N/A Apt Elev 348

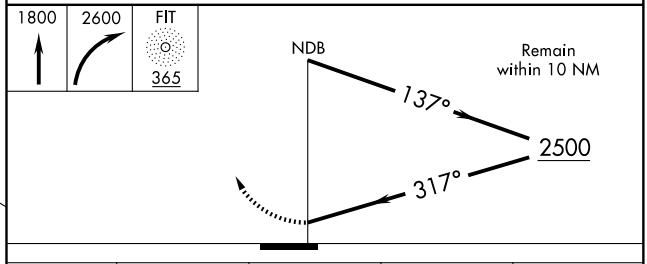
NDB-A
FITCHBURG MUNI (FIT)

MISSED APPROACH: Climb to 1800, then climbing right turn to 2600 direct FIT NDB and hold.

ASOS	BOSTON APP CON	UNICOM	
135.175	124.4 279.6	122.7 (CTAF)	123.0 L







REIL Rwy 32 L
MIRL Rwy 14-32 L

CATEGORY	A	B	C	D
CIRCLING	1180-1 832 (900-1)	1320-1½ 972 (1000-1½)	1340-3 992 (1000-3)	NA

NE-1. 17 DEC 2009 to 14 JAN 2010

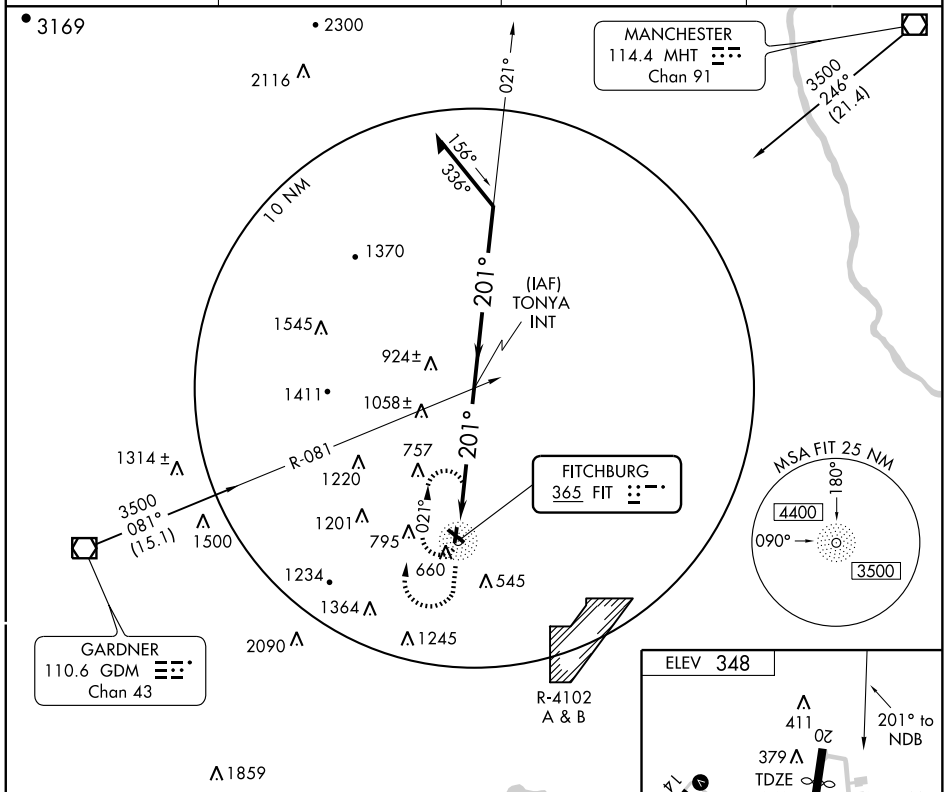
NDB FIT	APP CRS	Rwy ldg	3043
365	201°	TDZE	342
		Apt Elev	348

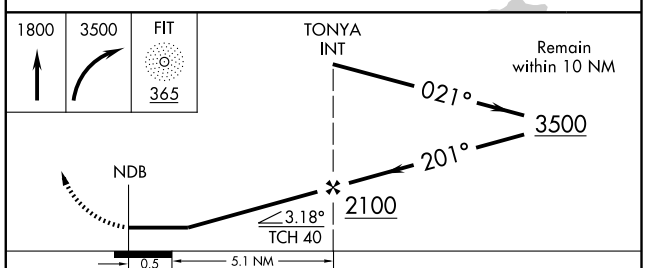
NDB RWY 20
FITCHBURG MUNI (FIT)

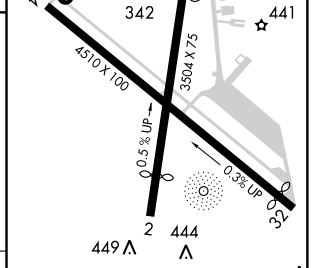
Straight-in minimums NA at night.

MISSED APPROACH: Climb to 1800, then climbing right turn to 3500 direct FIT NDB and hold.

ASOS	BOSTON APP CON	UNICOM	
135.175	124.4 279.6	122.7 (CTAF)	123.0 L







CATEGORY	A	B	C	D
S-20	1280-1¼ 938 (1000-1¼)		1280-2¾ 938 (1000-2¾)	NA
CIRCLING	1280-1¼ 932 (1000-1¼)	1320-1½ 972 (1000-1½)	1340-3 992 (1000-3)	NA

REIL Rwy 32 L
MIRL Rwy 14-32 L

NE-1. 17 DEC 2009 to 14 JAN 2010

FITCHBURG, MASSACHUSETTS

APP CRS	Rwy ldg	4510
158°	TDZE	340
	Apt Elev	348

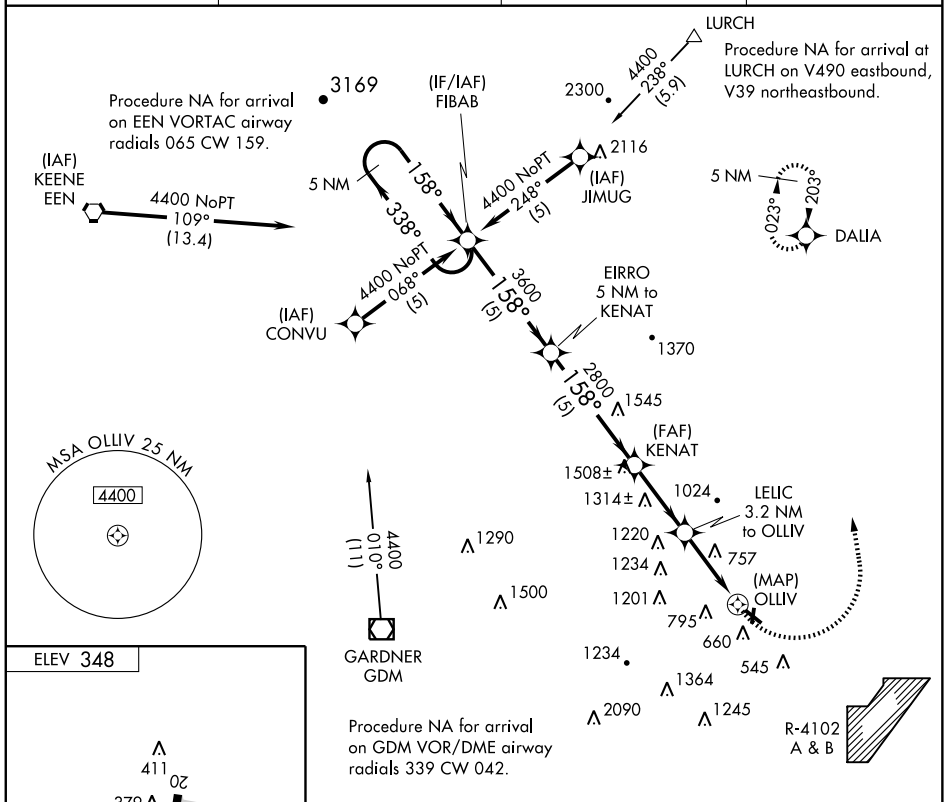
AL-747 (FAA)

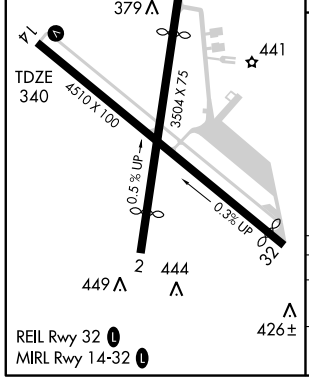
RNAV (GPS) RWY 14
FITCHBURG MUNI (FIT)

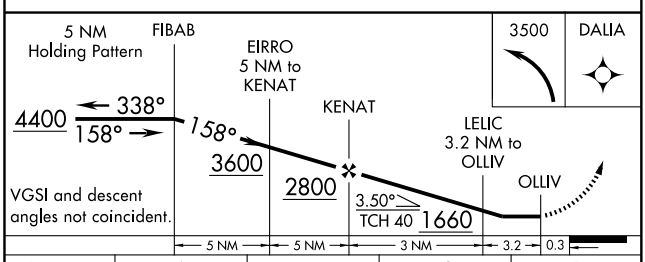
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing left turn to 3500 direct DALIA and hold.

ASOS	BOSTON APP CON	UNICOM	
135.175	124.4 279.6	122.7 (CTAF)	123.0 L







CATEGORY	A	B	C	D
LNAV MDA	1320-1¼ 980 (1000-1¼)	1320-1½ 980 (1000-1½)	1320-3 980 (1000-3)	NA
CIRCLING	1320-1¼ 972 (1000-1¼)	1320-1½ 972 (1000-1½)	1340-3 992 (1000-3)	NA

NE-1. 17 DEC 2009 to 14 JAN 2010

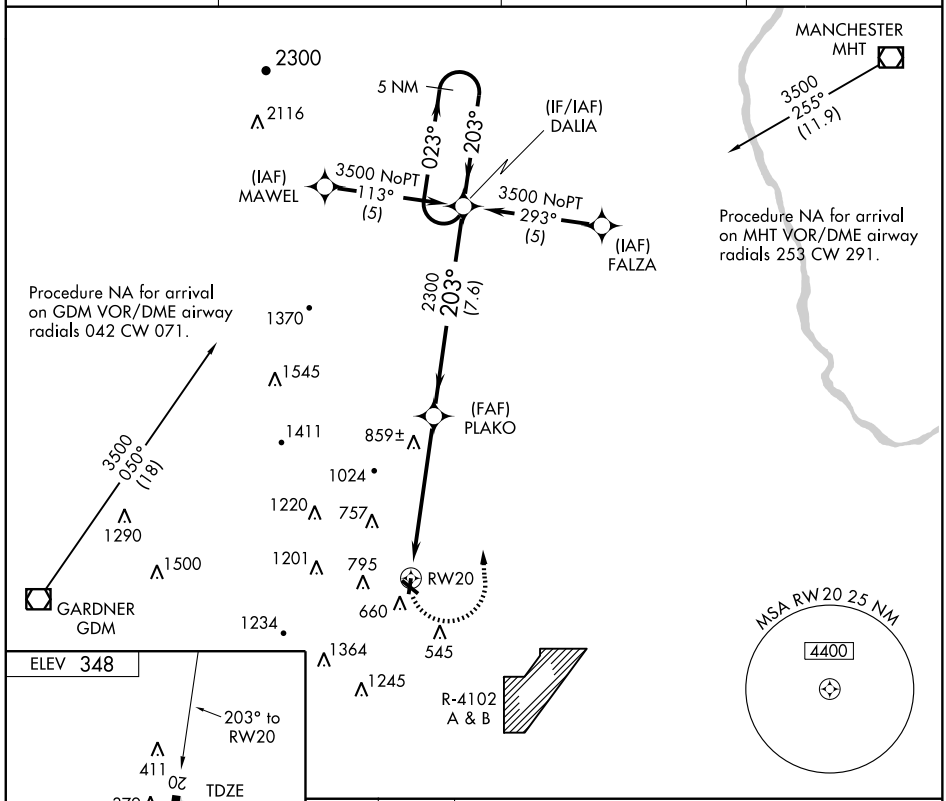
APP CRS	Rwy ldg	3043
203°	TDZE	342
	Apt Elev	348

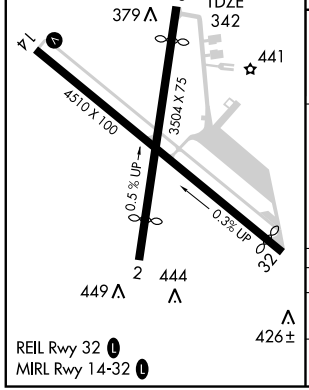
RNAV (GPS) RWY 20
FITCHBURG MUNI (FIT)

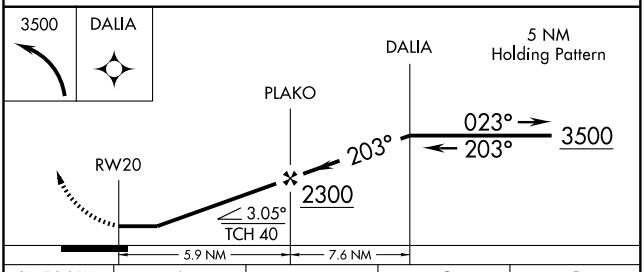
Straight-in minimums NA at night.
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing left turn to 3500 direct DALIA and hold.

ASOS	BOSTON APP CON	UNICOM	
135.175	124.4 279.6	122.7 (CTAF)	123.0 L







CATEGORY	A	B	C	D
LNAV MDA	1120-1 778 (800-1)	1120-1¼ 778 (800-1¼)	1120-2¼ 778 (800-2¼)	NA
CIRCLING	1120-1 772 (800-1)	1320-1½ 972 (1000-1½)	1340-3 992 (1000-3)	NA

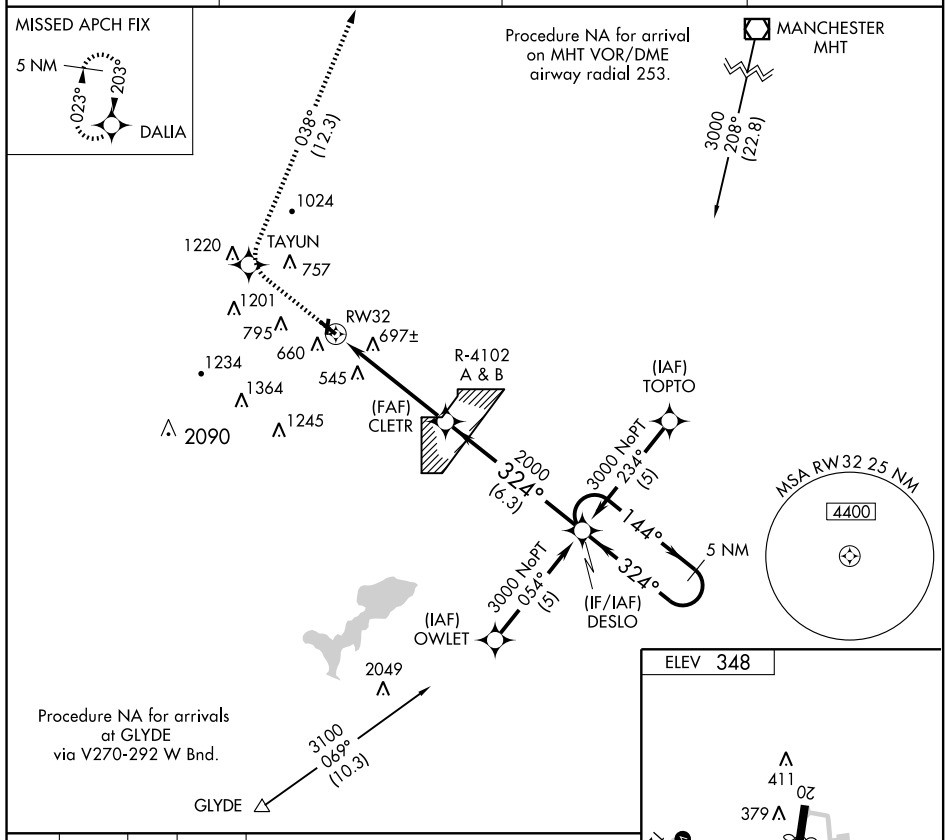
APP CRS	Rwy ldg	4269
324°	TDZE	335
	Apt Elev	348

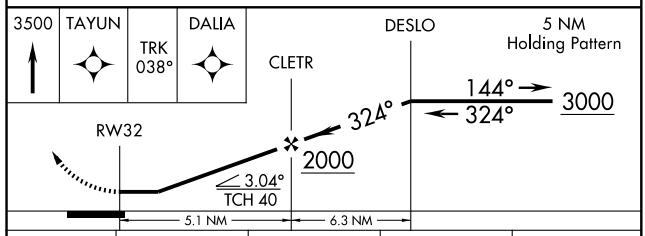
RNAV (GPS) RWY 32
FITCHBURG MUNI (FIT)

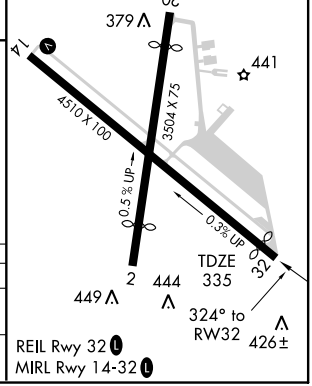
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3500 direct TAYUN and via 038° track to DALIA and hold.

ASOS	BOSTON APP CON	UNICOM	
135.175	124.4 279.6	122.7 (CTAF)	123.0 L







CATEGORY	A	B	C	D
LNAV MDA	1120-1 785 (800-1)	1120-1¼ 785 (800-1¼)	1120-2¼ 785 (800-2¼)	NA
CIRCLING	1120-1 772 (800-1)	1320-1½ 972 (1000-1½)	1340-3 992 (1000-3)	NA

NE-1. 17 DEC 2009 to 14 JAN 2010

VOR/DME GDM 110.6 Chan 43	APP CRS 097°	Rwy ldg N/A TDZE N/A Apt Elev 955

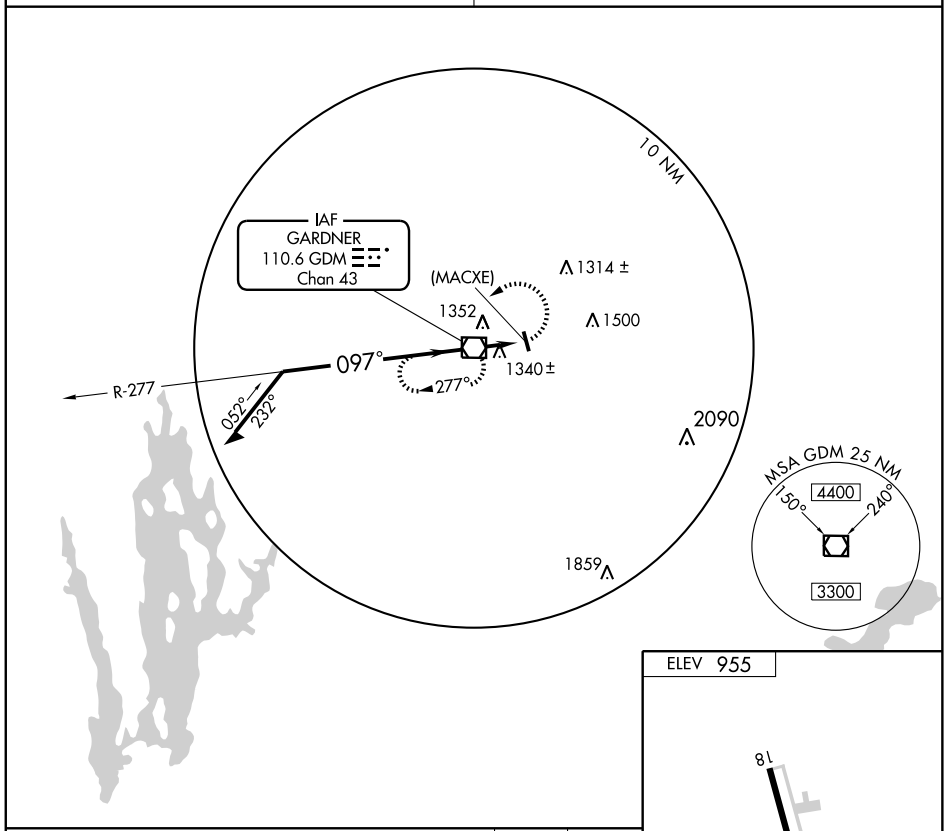
VOR or GPS-A
GARDNER MUNI (GDM)

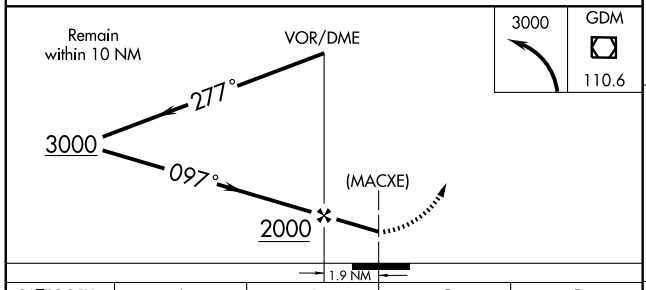
Use Worcester altimeter setting; when not recieved procedure not authorized.

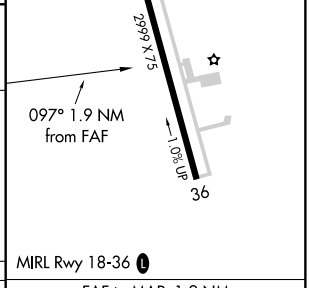
NA

MISSED APPROACH: Climbing left turn to 3000 direct GDM VOR/DME and hold.

BOSTON CENTER	UNICOM
123.75 338.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	1720-1 765 (800-1)	1720-1¼ 765 (800-1¼)	1740-2¼ 785 (800-2¼)	1740-2½ 785 (800-2½)

FAF to MAP 1.9 NM

Knots	60	90	120	150	180
Min:Sec	1:54	1:16	0:57	0:46	0:38

APP CRS	Rwy ldg	2409
115°	TDZE	739
	Apt Elev	739

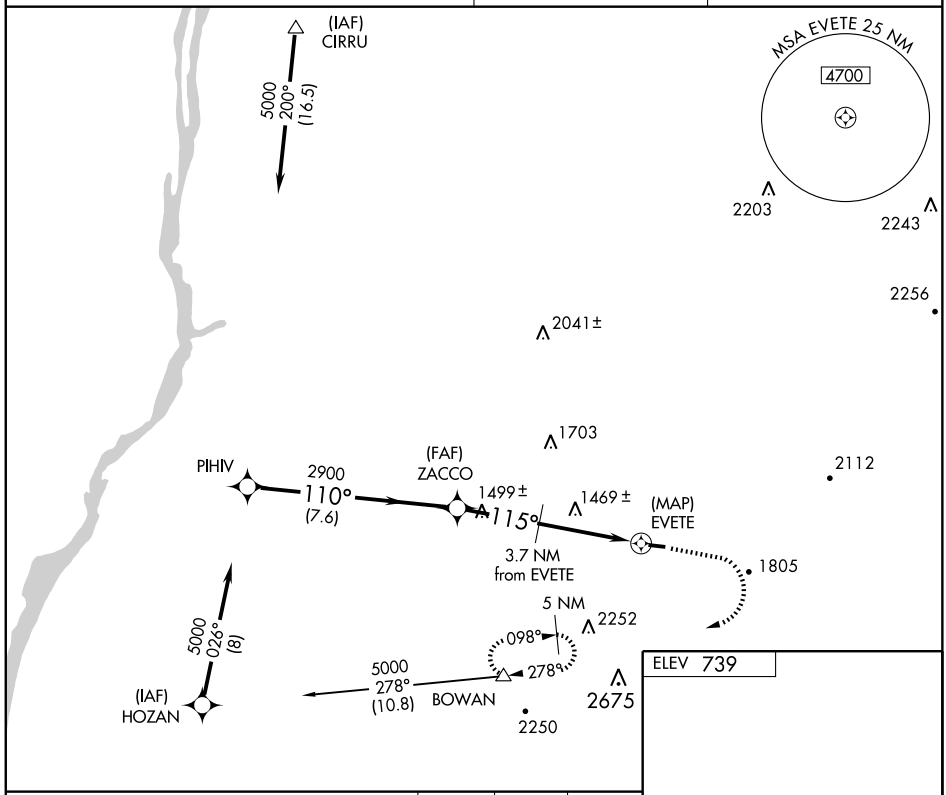
GPS RWY 11

GREAT BARRINGTON/ WALTER J. KOLADZA (GBR)

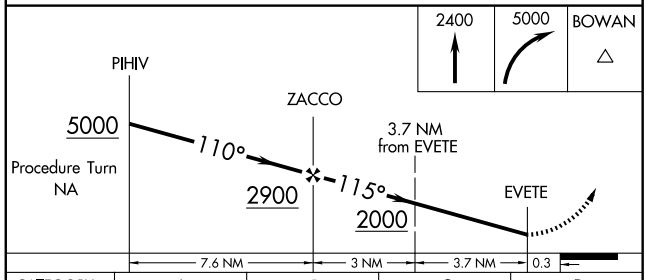
When local altimeter setting not recieved, procedure not authorized.

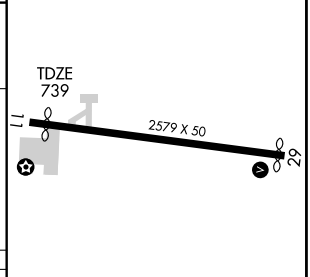
MISSED APPROACH: Climb to 2400, then climbing right turn to 5000 direct BOWAN WP and hold.

ALBANY APP CON	UNICOM	
132.825 307.2	122.8 (CTAF)	121.6 L



ELEV 739





CATEGORY	A	B	C	D
S-11	1720-1¼ 981 (1000-1¼)	1720-1½ 981 (1000-1½)	NA	
CIRCLING	1720-1¼ 981 (1000-1¼)	1720-1½ 981 (1000-1½)	NA	

REIL Rwy 11 L
LIRL Rwy 11-29 L

NE-1. 17 DEC 2009 to 14 JAN 2010

NDB GBR 395	APP CRS 346°	Rwy ldg N/A TDZE N/A Apt Elev 739

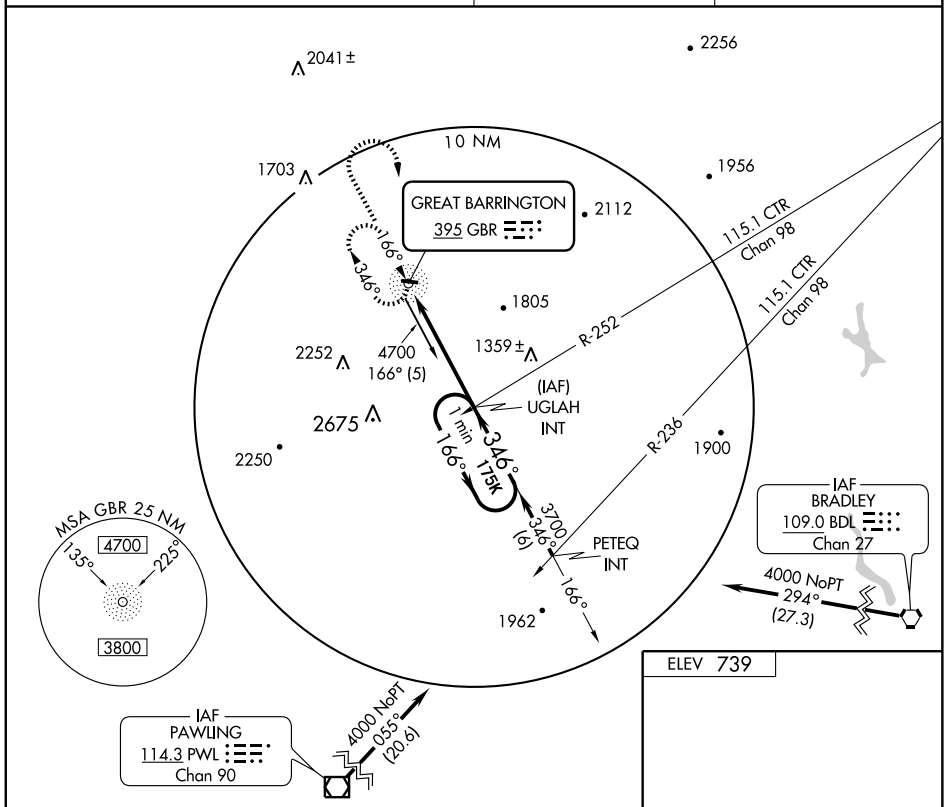
NDB or GPS-A

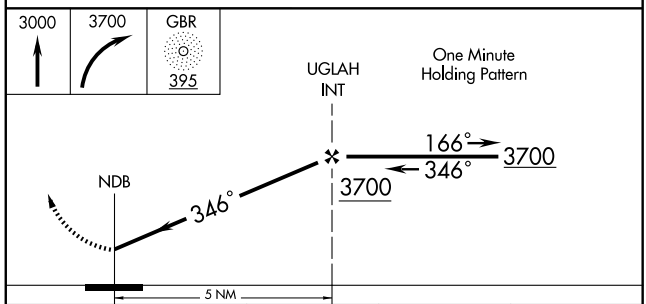
GREAT BARRINGTON/ WALTER J. KOLADZA (GBR)

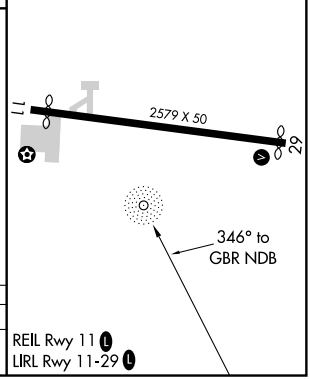
When local altimeter setting not recieved, procedure not authorized.

MISSED APPROACH: Climb to 3000, then climbing right turn to 3700 direct GBR NDB and hold.

ALBANY APP CON	UNICOM	
132.825 307.2	122.8 (CTAF)	121.6 L







CATEGORY	A	B	C	D
CIRLCING	1740-1¼ 1001 (1100-1¼)	1740-1½ 1001 (1100-1½)	NA	

REIL Rwy 11 L
LIRL Rwy 11-29 L

APP CRS	Rwy ldg	N/A
074°	TDZE	N/A
	Apt Elev	269

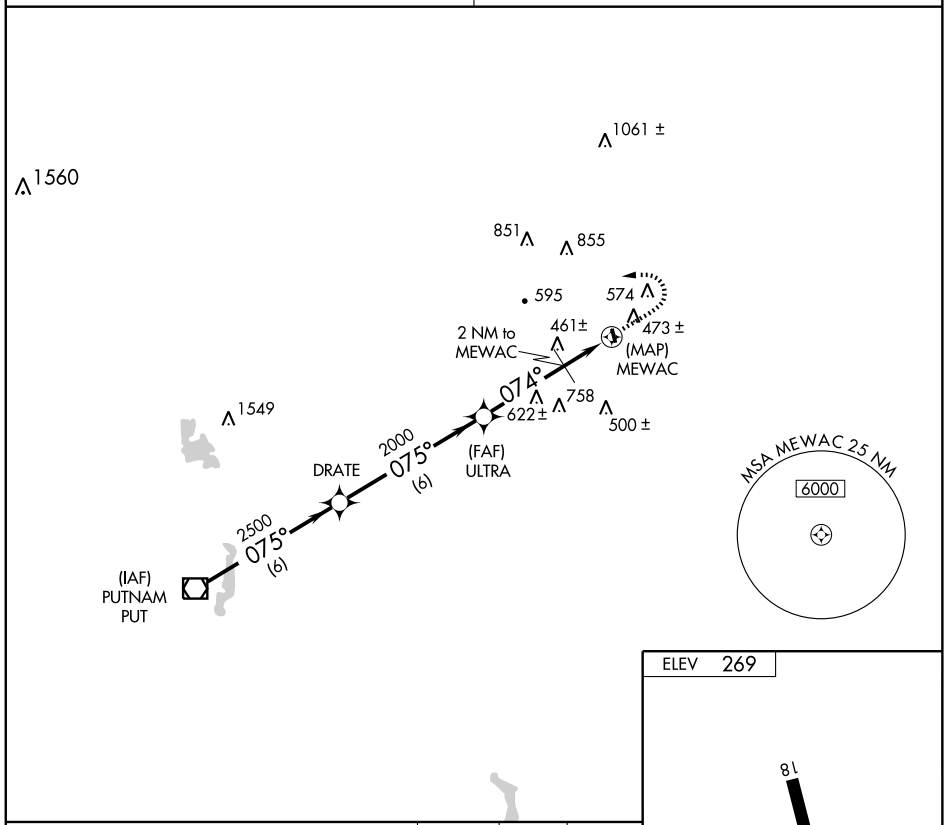
GPS-A
HOPEDALE INDUSTRIAL PARK (1B6)

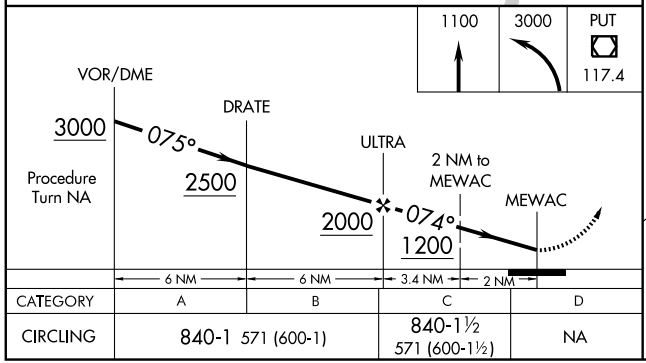
Use North Central, Pawtucket, RI altimeter setting. Procedure NA at night except by prior arrangement for runway lights. Circling Rwy 18 NA at night.

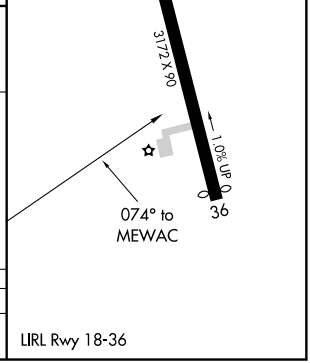
NA

MISSED APPROACH: Climb to 1100, then climbing left turn to 3000 direct PUT VOR/DME.

BRADLEY APP CON	UNICOM
119.0	**122.8** (CTAF)







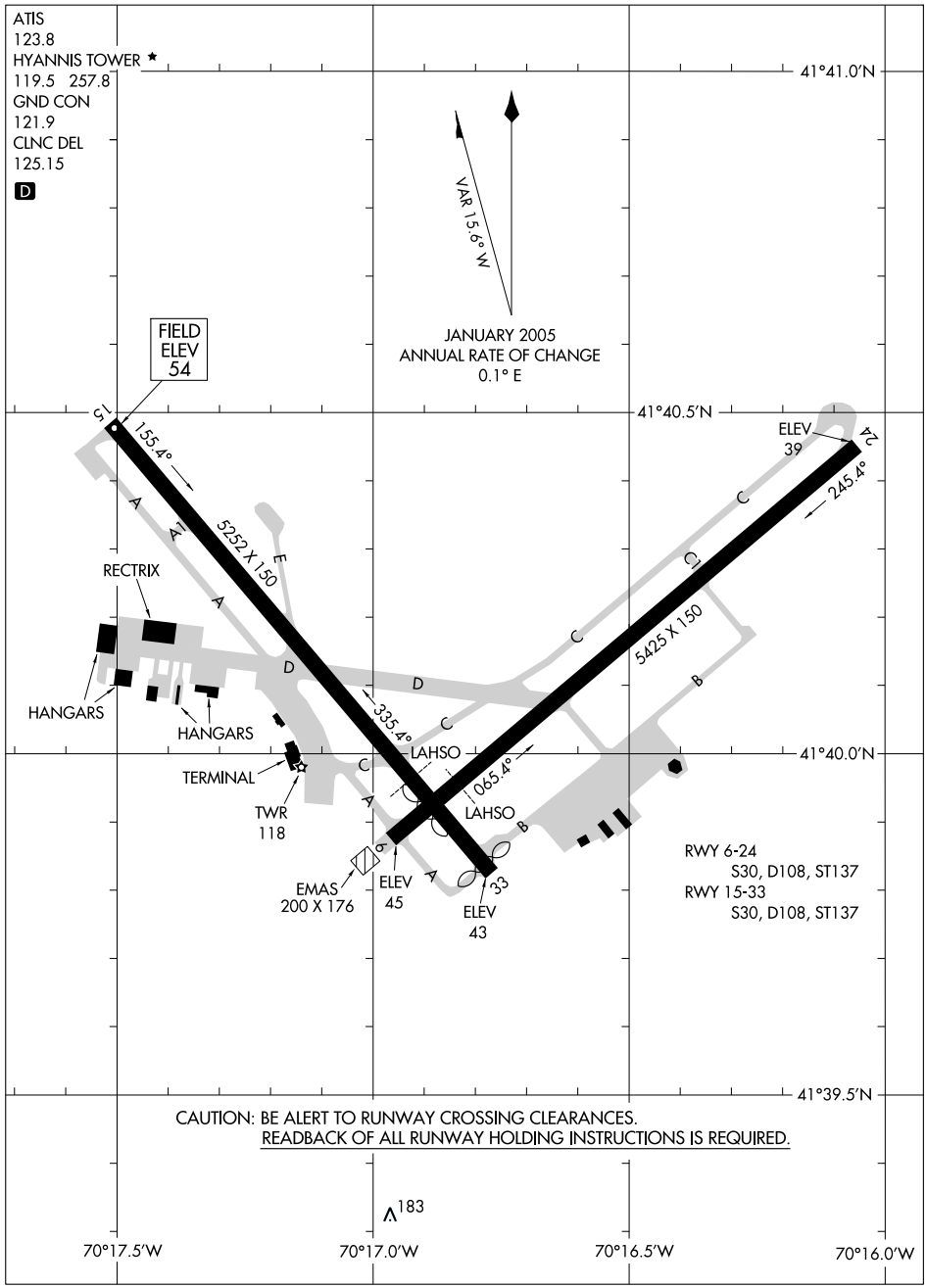
09239

AIRPORT DIAGRAM

HYANNIS/ BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

AL-675 (FAA)

HYANNIS, MASSACHUSETTS



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-BCU	APP CRS	Rwy ldg 5252
108.95	156°	TDZE 54
Chan 26 (Y)		Apt Elev 54

ILS or LOC RWY 15

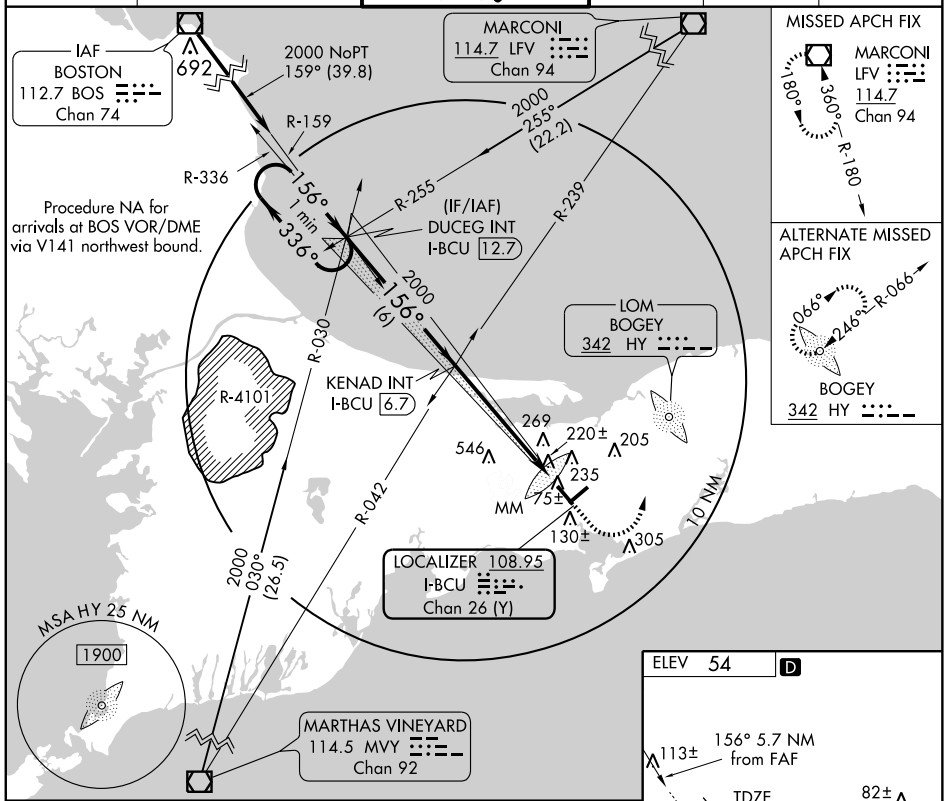
HYANNIS/ BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

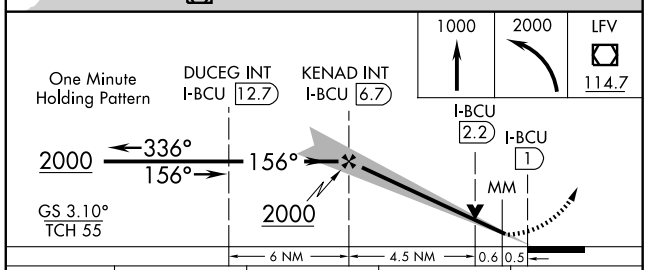
* RVR 1800 authorized with the use of FD or AP or HUD to DA. VDP NA when using Chatham altimeter setting. When local altimeter setting not received, use Chatham altimeter setting and increase all DA 33 feet and all MDA 40 feet , increase S-LOC 15 Cat D visibility to RVR 5000.

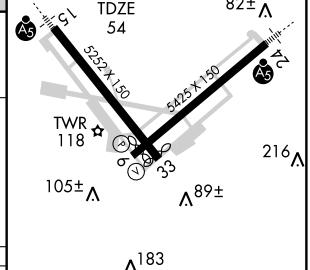
MALSR

MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct LFV VOR/DME and hold. When authorized by ATC, climb-in-hold to 3000.

ATIS	CAPE APP CON ★		HYANNIS TOWER ★	GND CON	CLNC DEL	UNICOM
123.8	118.2	284.6	119.5 (CTAF) L 257.8	121.9	125.15	122.95







CATEGORY	A	B	C	D
S-ILS 15	*254/24 200 (200-½)			
S-LOC 15	480/24 426 (500-½)		480/40 426 (500-¾)	
CIRCLING	560-1 506 (600-1)		580-1½ 526 (600-1½)	620-2 566 (600-2)

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-HYA	APP CRS	Rwy ldg 5425
109.15	246°	TDZE 43
Chan 28 (Y)		Apt Elev 54

ILS or LOC RWY 24

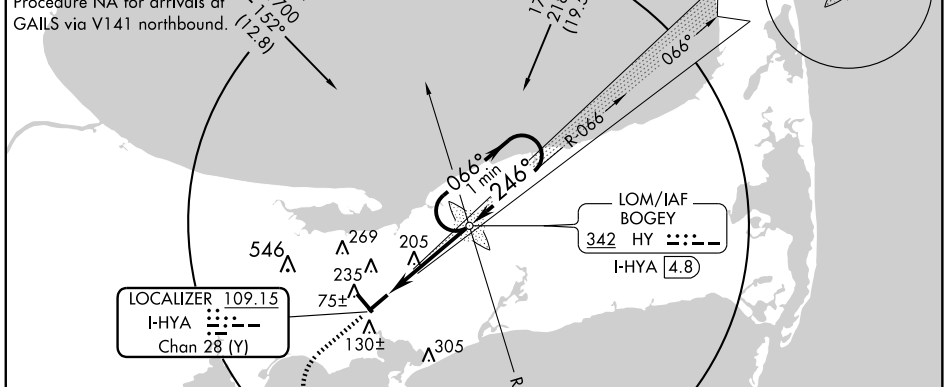
HYANNIS/ BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

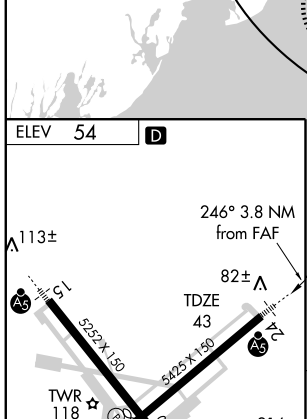
T Visibility reduction by helicopters NA. When local altimeter setting not received, use Chatham altimeter setting and increase all DA/MDA 40 feet. Inoperative table does not apply to S-ILS all Cats, S-LOC Cats A and B. For inoperative MALSR, increase S-LOC Cats C and D visibility to RVR 6000.

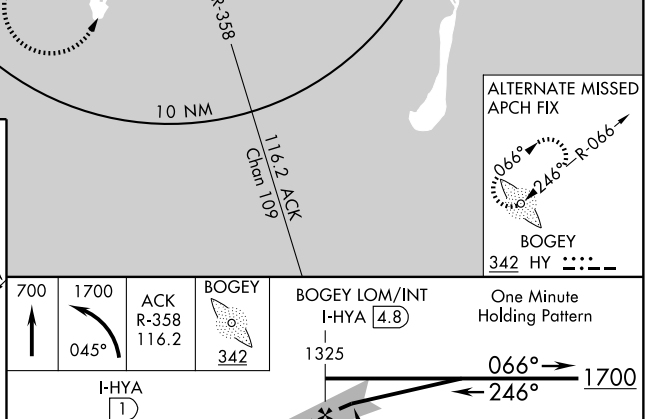
MALSR A5

MISSED APPROACH: Climb to 700, then climbing left turn to 1700 via heading 045° and ACK VOR/DME R-358 to BOGEY LOM/ INT/I-HYA 4.8 DME and hold.

ATIS	CAPE APP CON ★		HYANNIS TOWER ★	GND CON	CLNC DEL	UNICOM
123.8	118.2	284.6	119.5 (CTAF) L 257.8	121.9	125.15	122.95







FAF to MAP 3.8 NM					
Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

CATEGORY	A	B	C	D
S-ILS 24	293/50 250 (300-1)			
S-LOC 24	460/50 417 (500-1)			
CIRCLING	560-1 506 (600-1)		580-1½ 526 (600-1½)	620-2 566 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS CH 45799 W06A	APP CRS 066°	Rwy ldg 5019 TDZE 45 Apt Elev 54

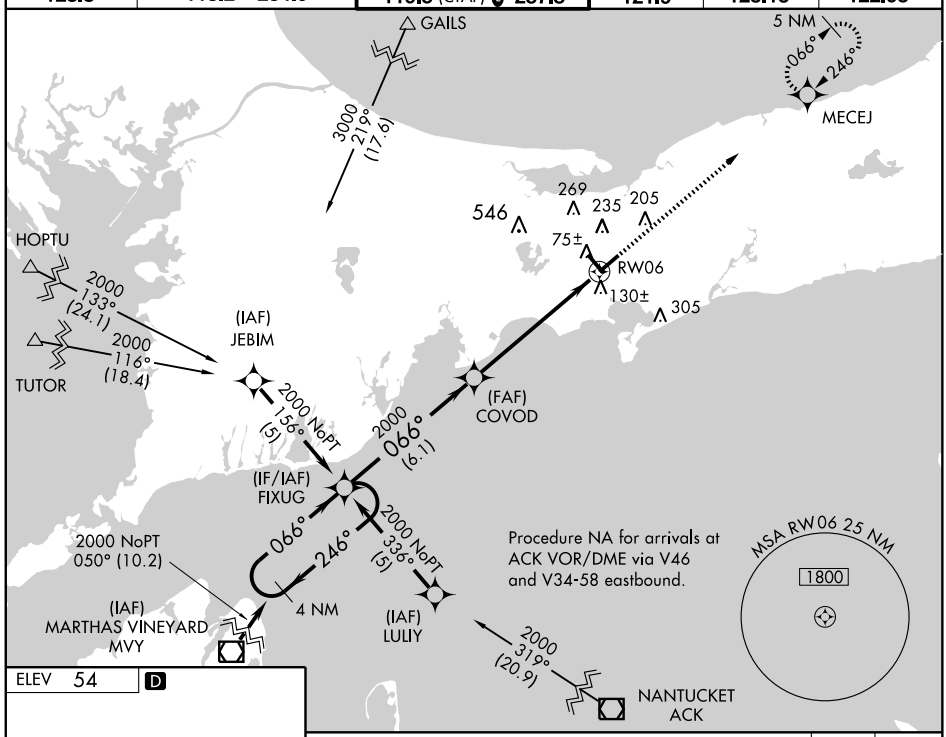
RNAV (GPS) RWY 6

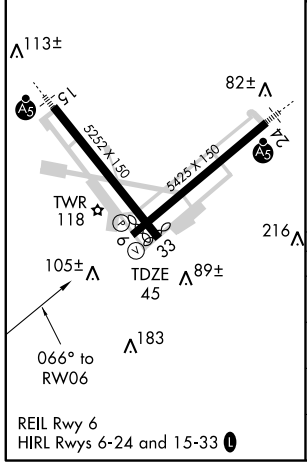
HYANNIS/BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

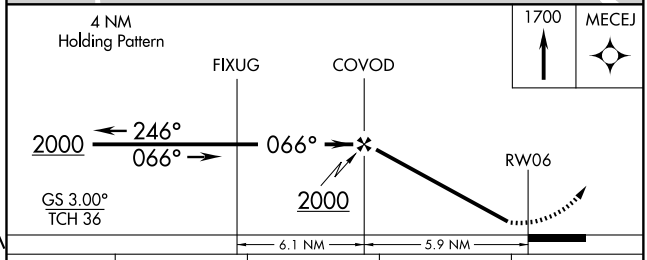
T A W DME/DME RNP-0.3 NA. BARO-VNAV NA below -15°C (5°F). BARO-VNAV NA when using Chatham altimeter setting. If local altimeter setting not received, use Chatham altimeter setting and increase all DAs/MDAs 40 feet.

MISSED APPROACH: Climb to 1700 direct MECEJ and hold.

ATIS	CAPE APP CON ★		HYANNIS TOWER ★		GND CON	CLNC DEL	UNICOM
123.8	118.2	284.6	119.5 (CTAF) L	257.8	121.9	125.15	122.95







CATEGORY	A	B	C	D
LPV DA	316-1 271 (300-1)			
LNAV/VNAV DA	443-1½ 398 (400-1½)			
LNAV MDA	480-1 435 (500-1)		480-1¼ 435 (500-1¼)	480-1½ 435 (500-1½)
CIRCLING	560-1½ 506 (600-1½)		580-1½ 526 (600-1½)	620-2 566 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS CH 61112 W15A	APP CRS 156°	Rwy ldg 5252 TDZE 54 Apt Elev 54

RNAV (GPS) RWY 15

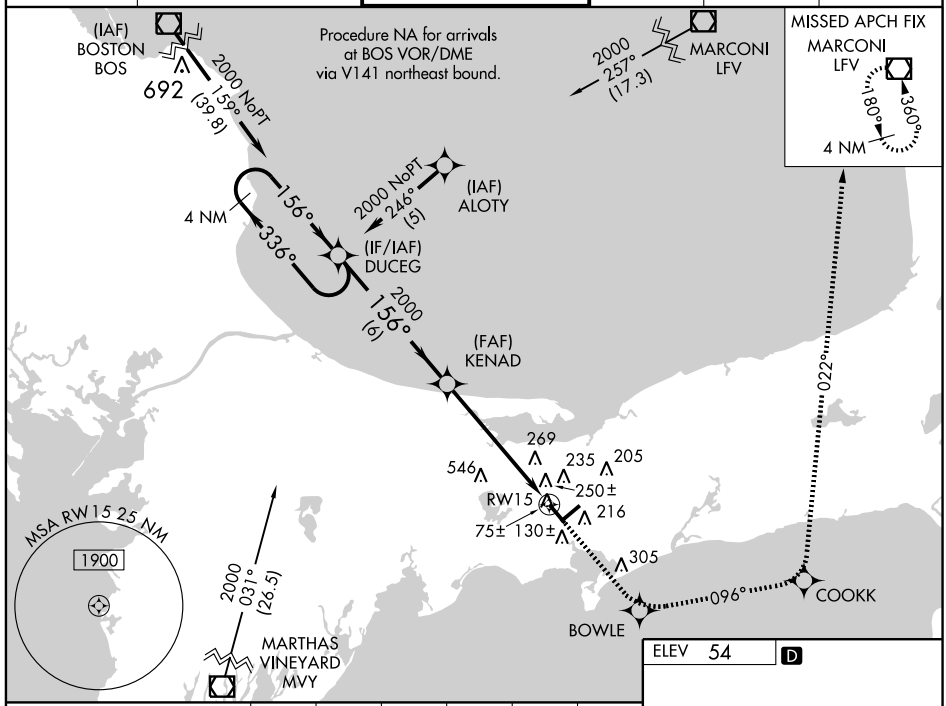
HYANNIS/ BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 39°C (102°F). DME/DME RNP -0.3. When local altimeter setting not received, use Chatham altimeter setting and increase all DA 33 feet and all MDA 40 feet. Baro-VNAV and VDP NA when using Chatham altimeter setting.

MALSR

MISSED APPROACH: Climb to 2000 direct BOWLE and via 096° track to COOKK and via 022° track to LFV VOR/DME and hold.

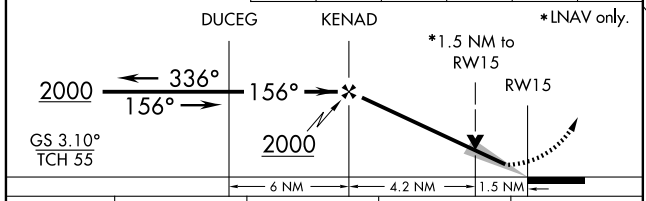
ATIS	CAPE APP CON ★		HYANNIS TOWER ★	GND CON	CLNC DEL	UNICOM
123.8	118.2	284.6	119.5 (CTAF) L 257.8	121.9	125.15	122.95

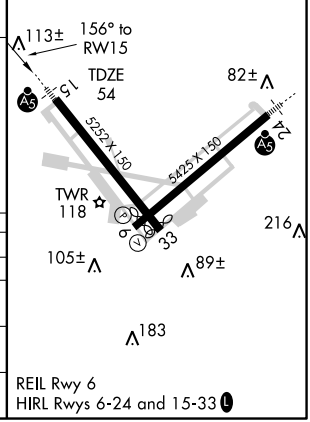


4 NM Holding Pattern

2000	BOWLE	096° track	COOKK	022° track	LFV

*LNAV only.





CATEGORY	A	B	C	D
LPV DA	254/24 200 (200-½)			
LNAV/VNAV DA	569/60 515 (600-1¼)			
LNAV MDA	600/24 546 (600-½)		600/50 546 (600-1)	600/60 546 (600-1¼)
CIRCLING	600-1 546 (600-1)		600-1½ 546 (600-1½)	620-2 566 (600-2)

WAAS CH 77812 W24A	APP CRS 246°	Rwy ldg 5425 TDZE 43 Apt Elev 54

RNAV (GPS) RWY 24

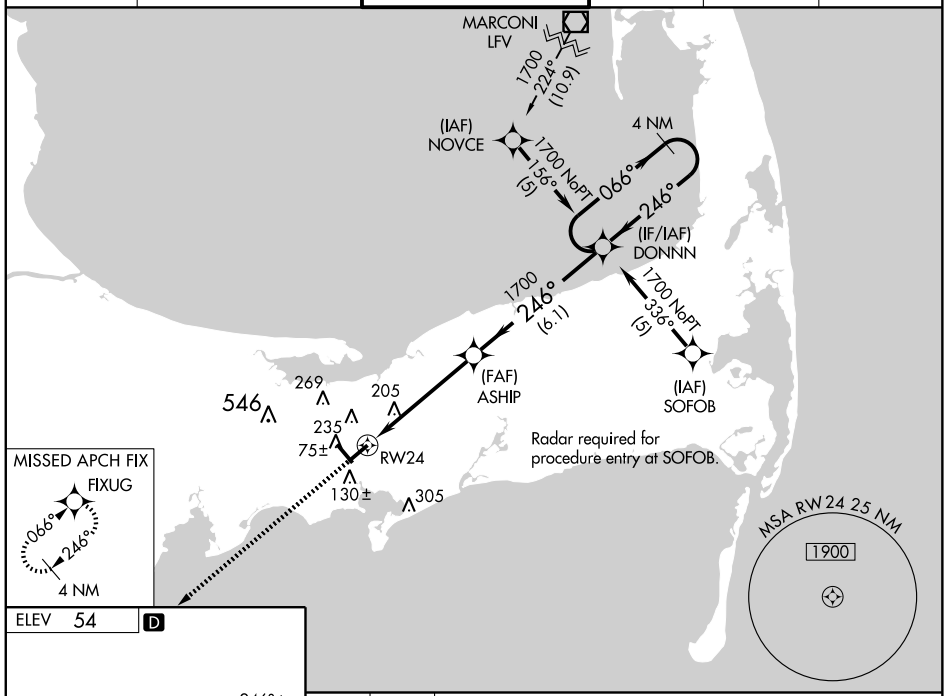
HYANNIS/BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Chatham altimeter setting and increase all DA 33 feet and all MDA 40 feet. Baro-VNAV NA when using Chatham Muni altimeter setting.
For inoperative MALSR, increase LNAV Cat C visibility to RVR 6000.
Inoperative table does not apply to LPV all Cats, and LNAV Cats A and B.

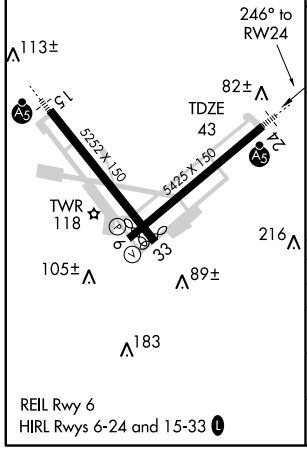
MALSR

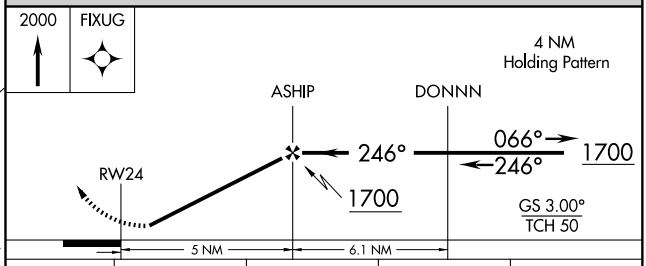
MISSED APPROACH: Climb to 2000 direct FIXUG and hold.

ATIS	CAPE APP CON ★		HYANNIS TOWER ★	GND CON	CLNC DEL	UNICOM
123.8	118.2	284.6	119.5 (CTAF) L 257.8	121.9	125.15	122.95



ELEV 54 D





CATEGORY	A	B	C	D
LPV DA	318/50	275 (300-1)		
LNAV/VNAV DA	441/50	398 (400-1)		
LNAV MDA	500/50	457 (500-1)		
CIRCLING	560-1	506 (600-1)	580-1½ 526 (600-1½)	620-2 566 (600-2)

VOR/DME MVY	APP CRS	Rwy ldg 5019
114.5	058°	TDZE 45
Chan 92		Apt Elev 54

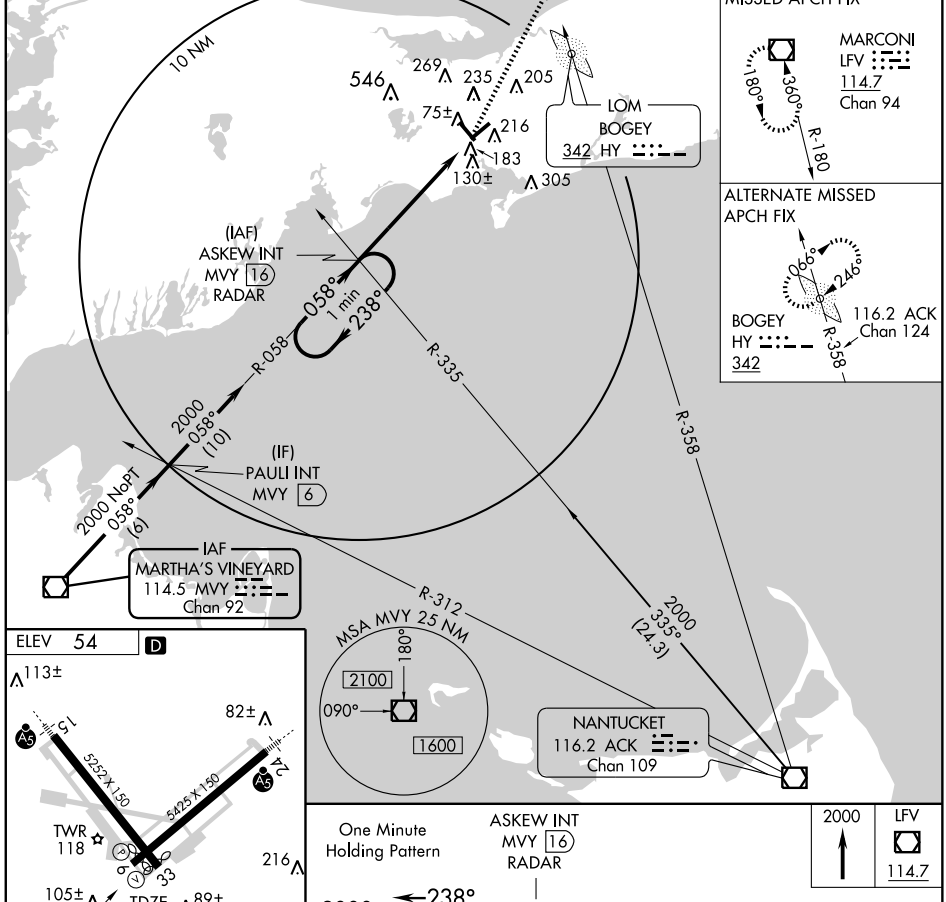
VOR RWY 6

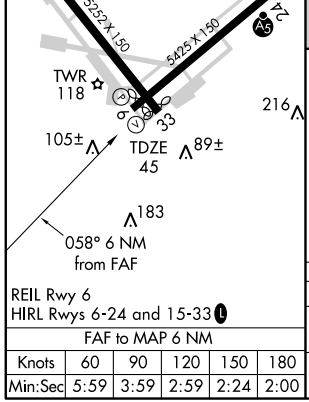
HYANNIS/ BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

If local altimeter setting not received, use Chatham altimeter setting and increase all MDAs 40 feet.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 2000 direct LFV VOR/DME and hold. When authorized by ATC, climb-in-hold to 3000.

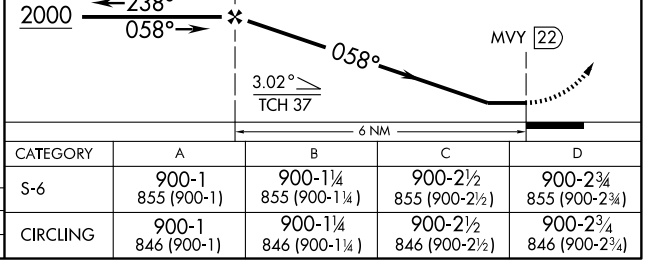
ATIS	CAPE APP CON ★	HYANNIS TOWER ★	GND CON	CLNC DEL	UNICOM
123.8	118.2 284.6	119.5 (CTAF) L 257.8	121.9	125.15	122.95





REIL Rwy 6
HIRL Rwys 6-24 and 15-33 L

FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	5:59	3:59	2:59	2:24	2:00

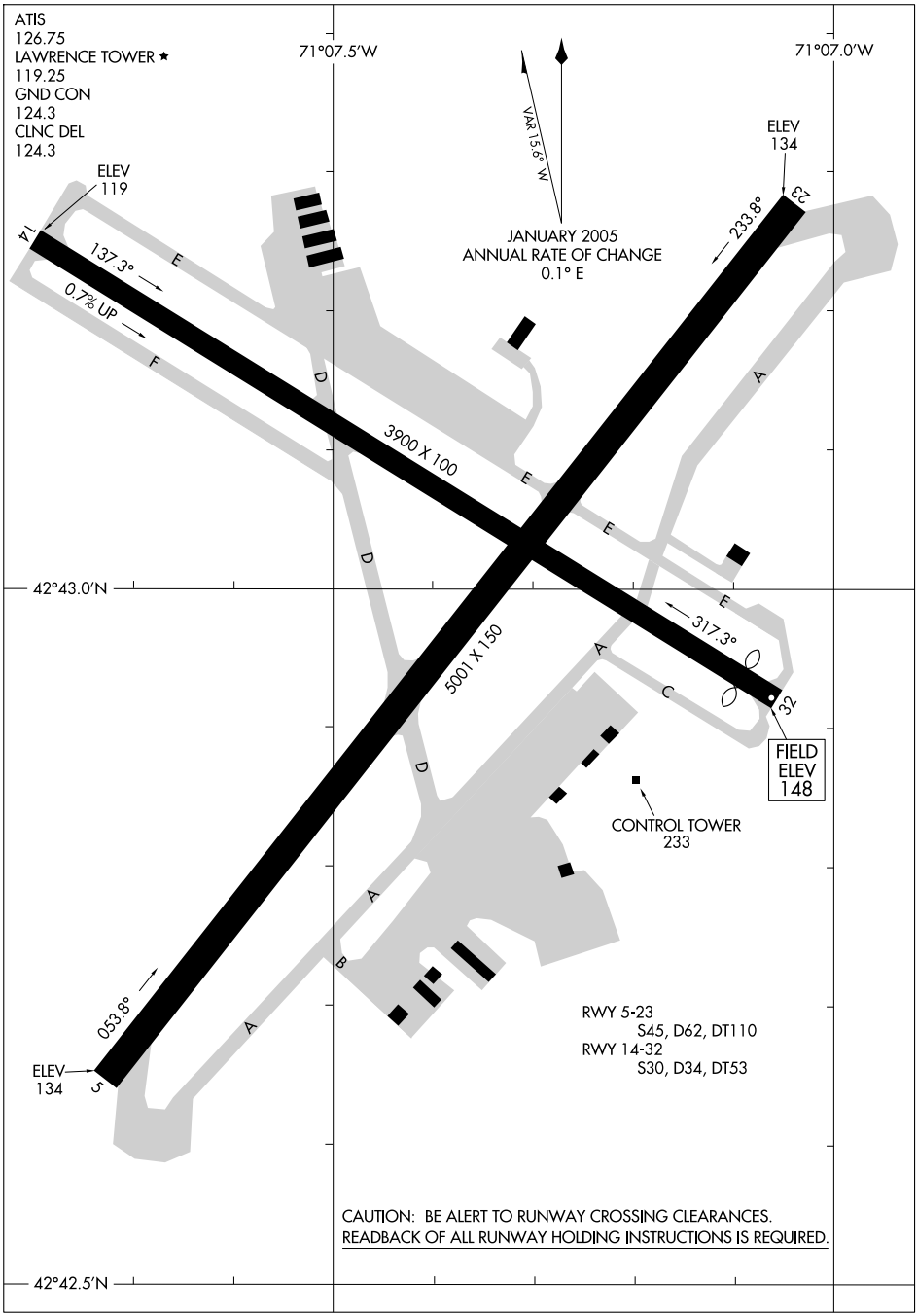


CATEGORY	A	B	C	D
S-6	900-1 855 (900-1)	900-1¼ 855 (900-1¼)	900-2½ 855 (900-2½)	900-2¾ 855 (900-2¾)
CIRCLING	900-1 846 (900-1)	900-1¼ 846 (900-1¼)	900-2½ 846 (900-2½)	900-2¾ 846 (900-2¾)

AIRPORT DIAGRAM

AL-654 (FAA)

LAWRENCE MUNI (LWM)
LAWRENCE, MASSACHUSETTS



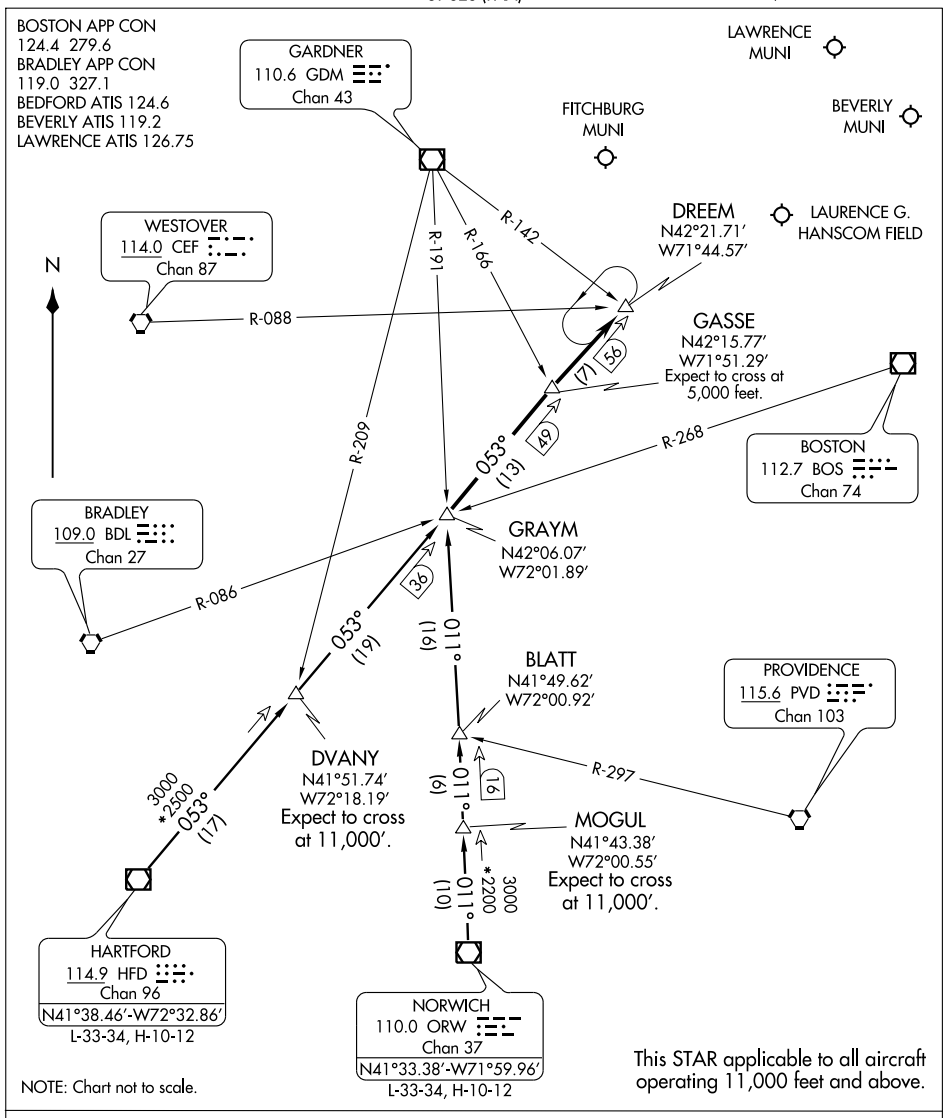
NE-1, 17 DEC 2009 to 14 JAN 2010

(GRAYM.GRAYM2) 09183

GRAYM TWO ARRIVAL

ST-626 (FAA)

BEDFORD, MASSACHUSETTS



HARTFORD TRANSITION (HFD.GRAYM2): From over HFD VOR/DME via HFD R-053 to GRAYM INT. Thence. . . .

NORWICH TRANSITION (ORW.GRAYM2): From over ORW VOR/DME via ORW R-011 to GRAYM INT. Thence. . . .

. . . . From over GRAYM INT via HFD VOR/DME R-053 to DREEM INT, then direct destination airport. Expect radar vectors to final approach course.

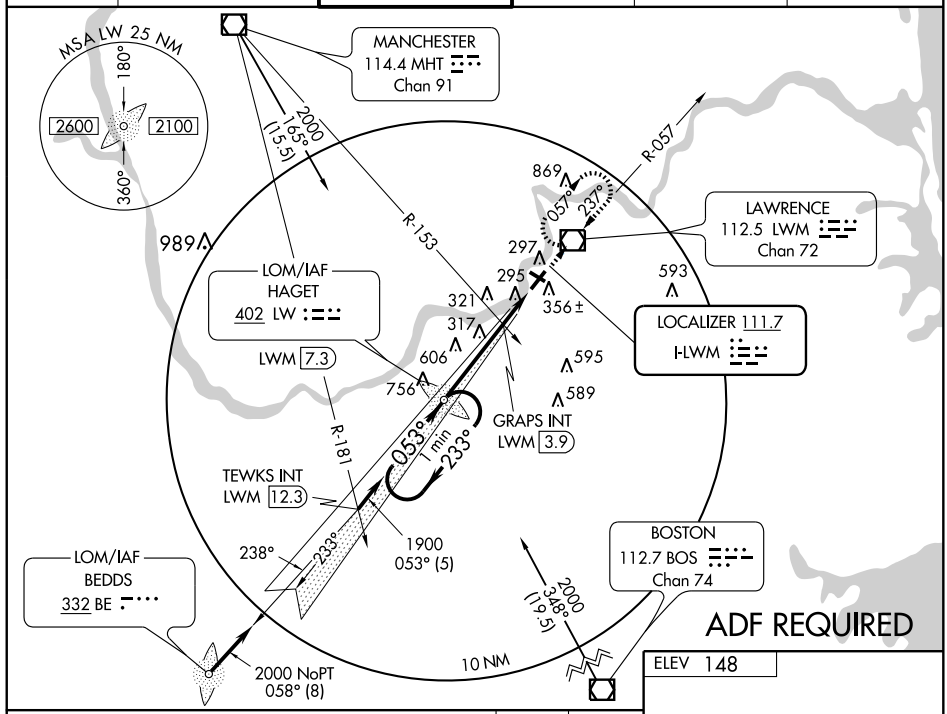
NE-1, 17 DEC 2009 to 14 JAN 2010

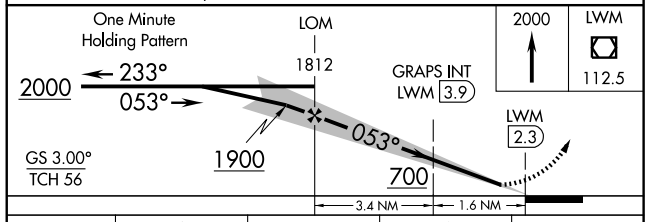
LOC I-LWM	APP CRS	Rwy ldg	5001
111.7	053°	TDZE	144
		Apt Elev	148

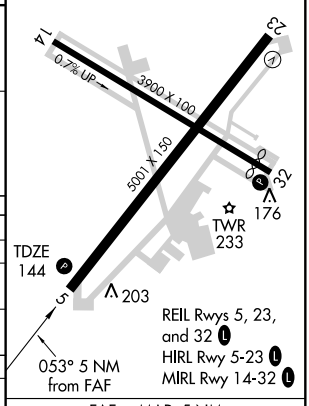
ILS RWY 5
LAWRENCE MUNI (LWM)

MISSED APPROACH: Climb to 2000 direct LWM VOR/DME and hold.

ATIS	BOSTON APP CON		LAWRENCE TOWER ★	GND CON	CLNC DEL	UNICOM
126.75	124.4	279.6	119.25 (CTAF) L	124.3	124.3	122.8







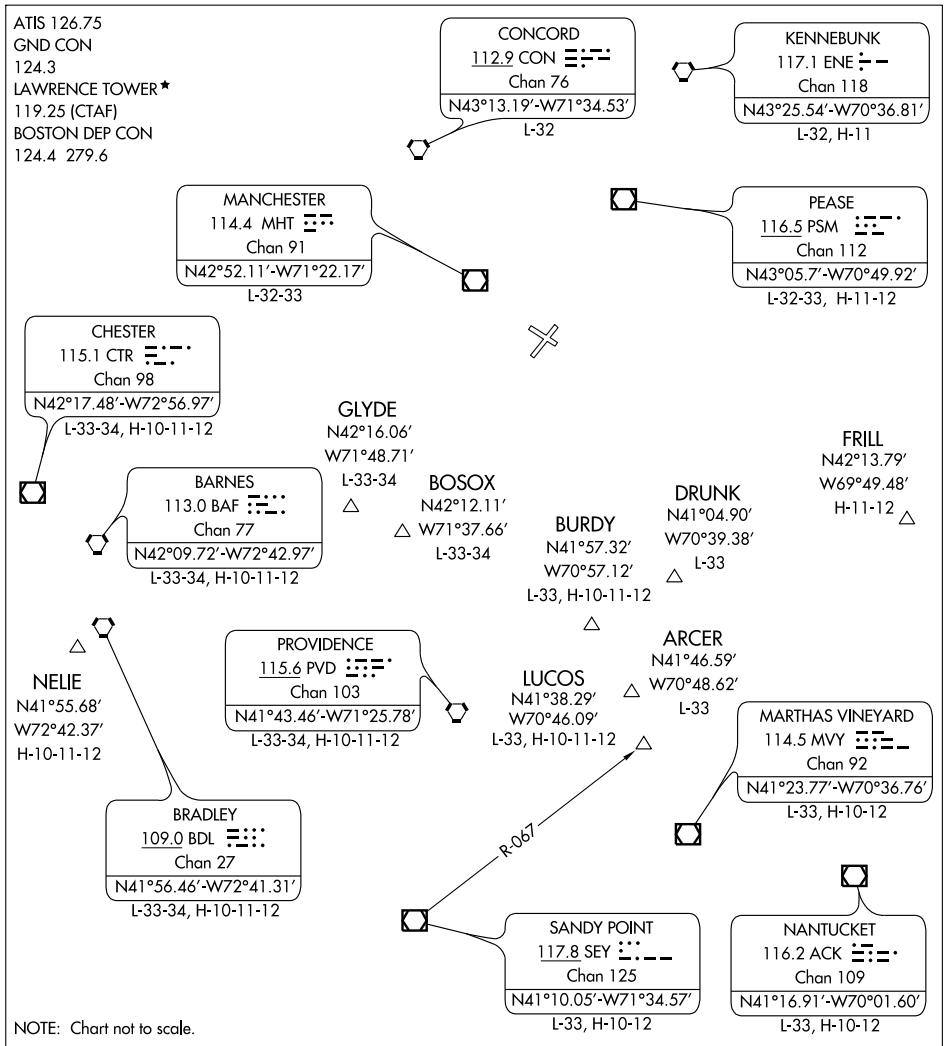
REIL Rwys 5, 23, and 32 L
HIRL Rwy 5-23 L
MIRL Rwy 14-32 L

CATEGORY	A	B	C	D
S-ILS 5	344-¾ 200 (200-¾)			
S-LOC 5	700-1 556 (600-1)		700-1½ 556 (600-1½)	700-1¾ 556 (600-1¾)
CIRCLING	720-1 572 (600-1)		720-1½ 572 (600-1½)	740-2 592 (600-2)
GRAPS INT MINIMUMS				
S-LOC 5	500-1 356 (400-1)			500-1¼ 356 (400-1¼)
CIRCLING	720-1 572 (600-1)		720-1½ 572 (600-1½)	740-2 592 (600-2)

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NE-1. 17 DEC 2009 to 14 JAN 2010

LAWRENCE FOUR DEPARTURE AL-654 (FAA)



DEPARTURE ROUTE DESCRIPTION

All aircraft expect radar vectors to appropriate depicted NAVAID/fix. Maintain 2000′. Expect further clearace to filed altitude/flight level ten minutes after departure.

TAKE-OFF ALL RUNWAYS: Heading as assigned by ATC for vectors to assigned NAVAID/fix.

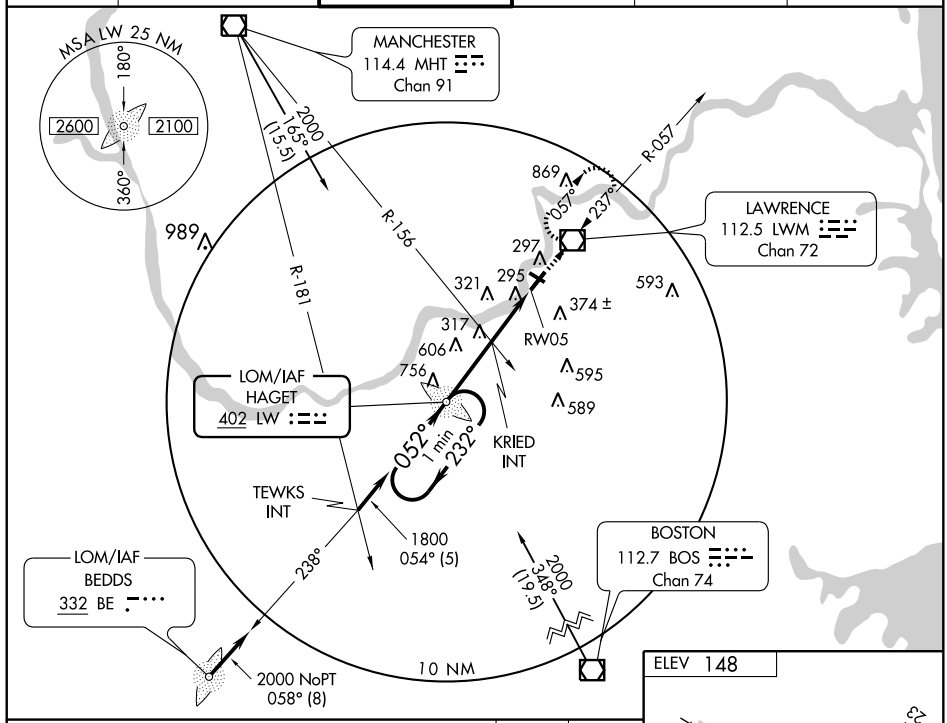
NE-1, 17 DEC 2009 to 14 JAN 2010

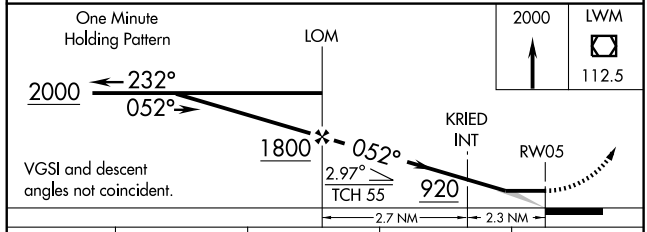
LOM LW	APP CRS	Rwy ldg	5001
402	052°	TDZE	144
		Apt Elev	148

NDB or GPS RWY 5
LAWRENCE MUNI (LWM)

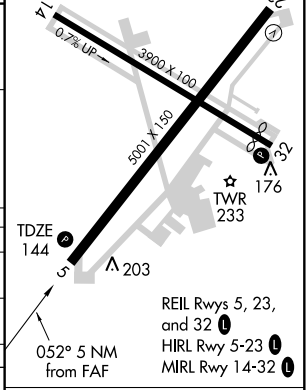
MISSED APPROACH: Climb to 2000 direct LWM VOR/DME and hold.

ATIS	BOSTON APP CON	LAWRENCE TOWER ★	GND CON	CLNC DEL	UNICOM
126.75	124.4 279.6	119.25 (CTAF) L	124.3	124.3	122.8





CATEGORY	A	B	C	D
S-5	920-1 776 (800-1)	920-1¼ 776 (800-1¼)	920-2¼ 776 (800-2¼)	920-2½ 776 (800-2½)
CIRCLING	920-1 772 (800-1)	920-1¼ 772 (800-1¼)	920-2¼ 772 (800-2¼)	920-2½ 772 (800-2½)
KRIED INT MINIMUMS				
S-5	680-1 536 (600-1)		680-1½ 536 (600-1½)	680-1¾ 536 (600-1¾)
CIRCLING	720-1 572 (600-1)		720-1½ 572 (600-1½)	740-2 592 (600-2)



FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

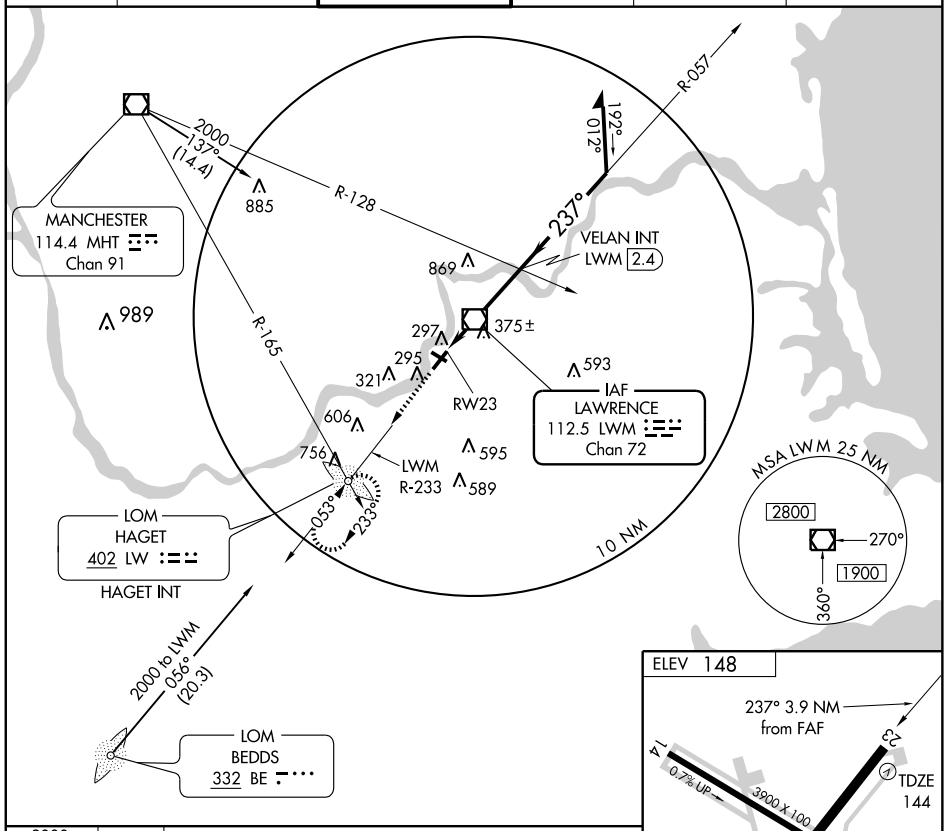
NE-1. 17 DEC 2009 to 14 JAN 2010

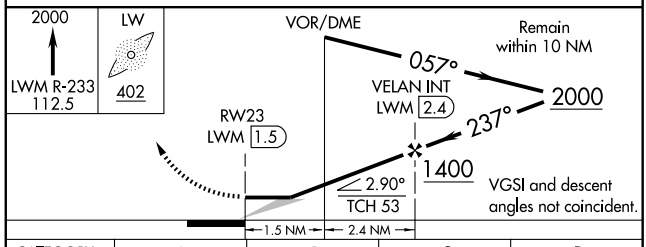
VOR/DME LWM	APP CRS	Rwy ldg	5001
112.5	237°	TDZE	144
Chan 72		Apt Elev	148

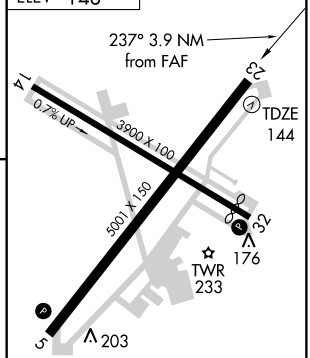
VOR or GPS RWY 23
LAWRENCE MUNI (LWM)

MISSED APPROACH: Climb to 2000 via LWM R-233 to HAGET LOM/Int and hold.

ATIS	BOSTON APP CON		LAWRENCE TOWER ★	GND CON	CLNC DEL	UNICOM
126.75	124.4	279.6	119.25 (CTAF) L	124.3	124.3	122.8







REIL Rwys 5, 23 and 32 L
HIRL Rwy 5-23 L
MIRL Rwy 14-32 L

CATEGORY	A	B	C	D
S-23	640-1 496 (500-1)		640-1¼ 496 (500-1¼)	640-1½ 496 (500-1½)
CIRCLING	720-1 572 (600-1)		720-1½ 572 (600-1½)	740-2 592 (600-2)

FAF to MAP 3.9 NM					
Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18

NE-1. 17 DEC 2009 to 14 JAN 2010

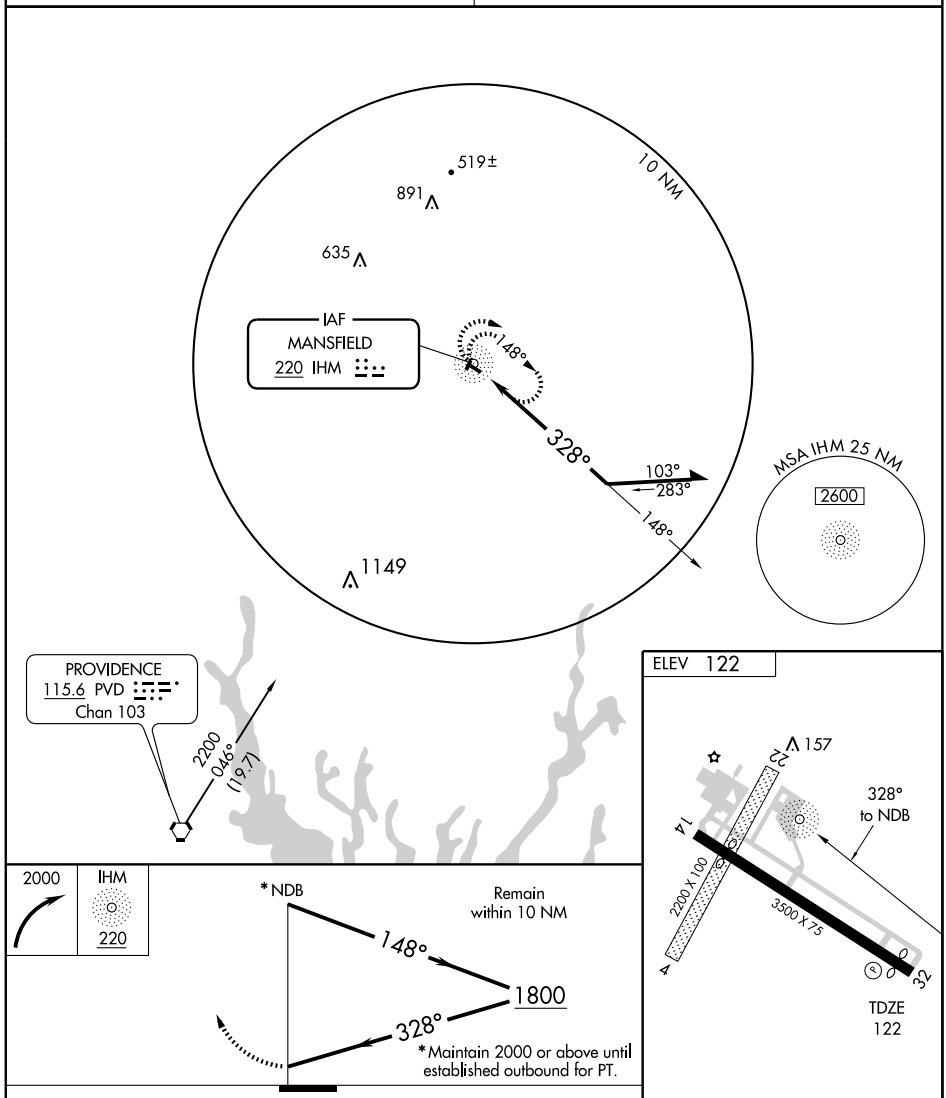
NDB IHM 220	APP CRS 328°	Rwy ldg 3264 TDZE 122 Apt Elev 122

NDB RWY 32
MANSFIELD MUNI (1B9)

Use Taunton Muni - King Field altimeter setting.
Circling NA to Rwys 4 and 22.

MISSED APPROACH: Climbing right turn to 2000 in IHM NDB holding pattern.

BOSTON APP CON	UNICOM
124.1 382.0	123.0 (CTAF) L



CATEGORY	A	B	C	D
S-32	720-1	598 (600-1)	NA	
CIRCLING	720-1	598 (600-1)	NA	

MIRL Rwy 14-32 L

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	3264
319°	TDZE	122
	Apt Elev	122

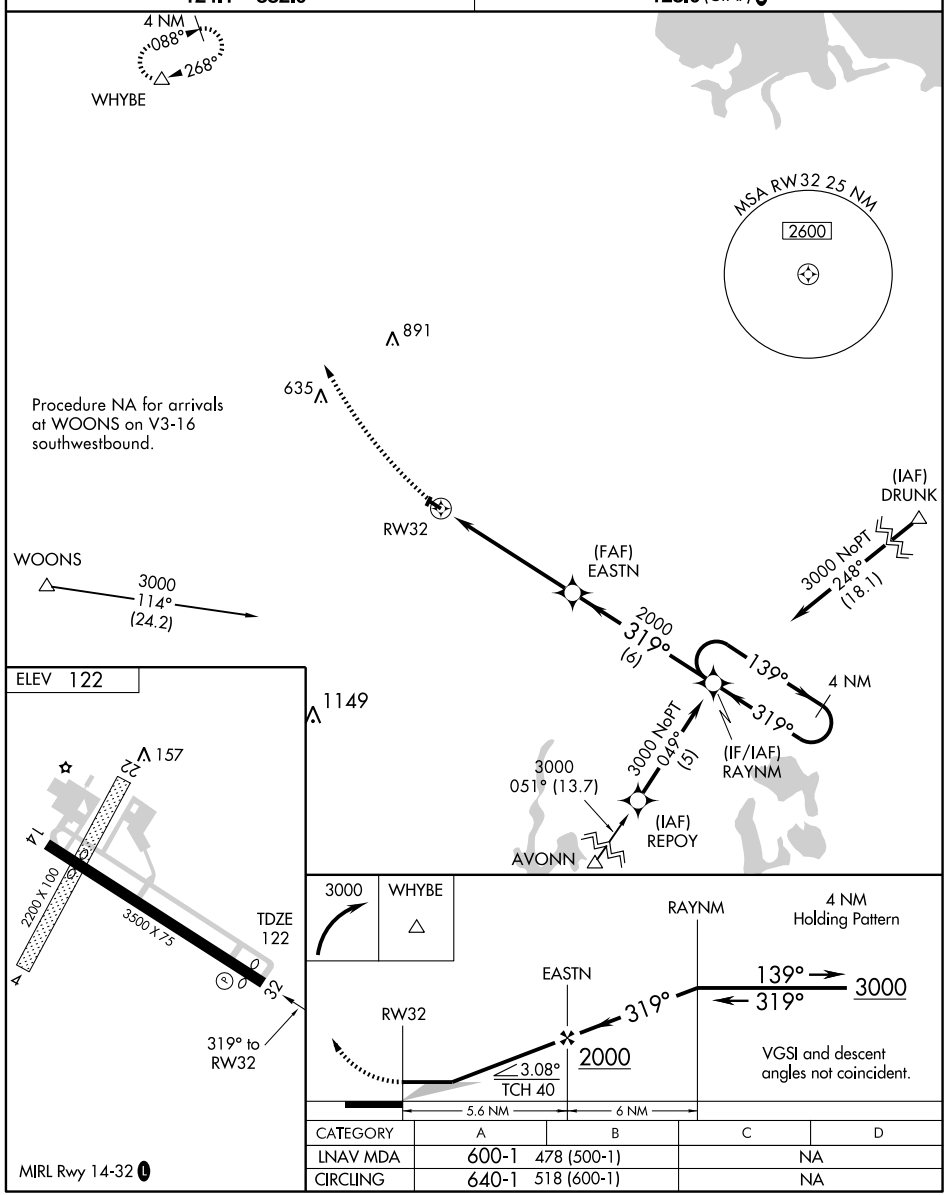
RNAV (GPS) RWY 32
MANSFIELD MUNI (1B9)

GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. Use Taunton Muni - King Field altimeter setting. Circling NA to Rwys 4 and 22.

NA

MISSED APPROACH: Climbing right turn to 3000 direct WHYBE WP and hold.

BOSTON APP CON	UNICOM
124.1 382.0	123.0 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	600-1 478 (500-1)		NA	
CIRCLING	640-1 518 (600-1)		NA	

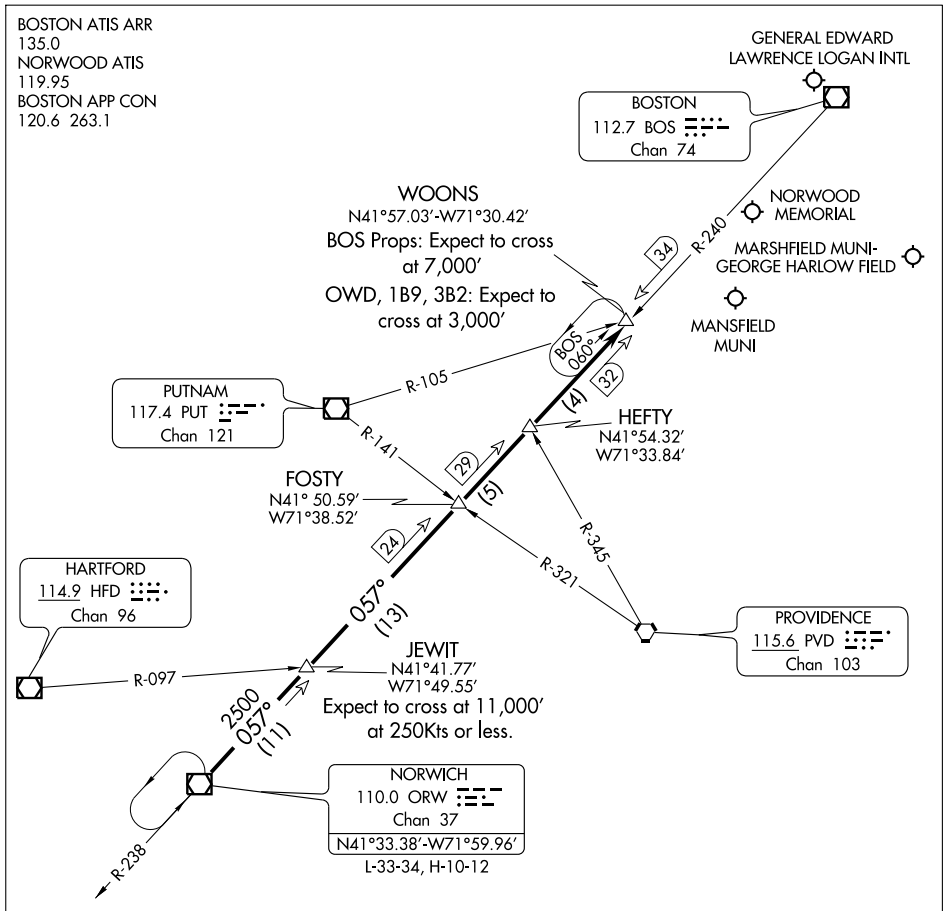
MIRL Rwy 14-32 L

(ORW.WOONS1) 09239

WOONS ONE ARRIVAL

ST-58 (FAA)

BOSTON, MASSACHUSETTS



NOTE: Chart not to scale

NOTE: Applicable to props landing BOS and all aircraft landing OWD, 1B9 and GHG. Applicable 11,000 feet and above.

From over ORW VOR/DME via ORW R-057 to WOONS INT. Expect radar vectors to final.

NDB IMR	APP CRS	Rwy ldg	3001
368	062°	TDZE	11
		Apt Elev	11

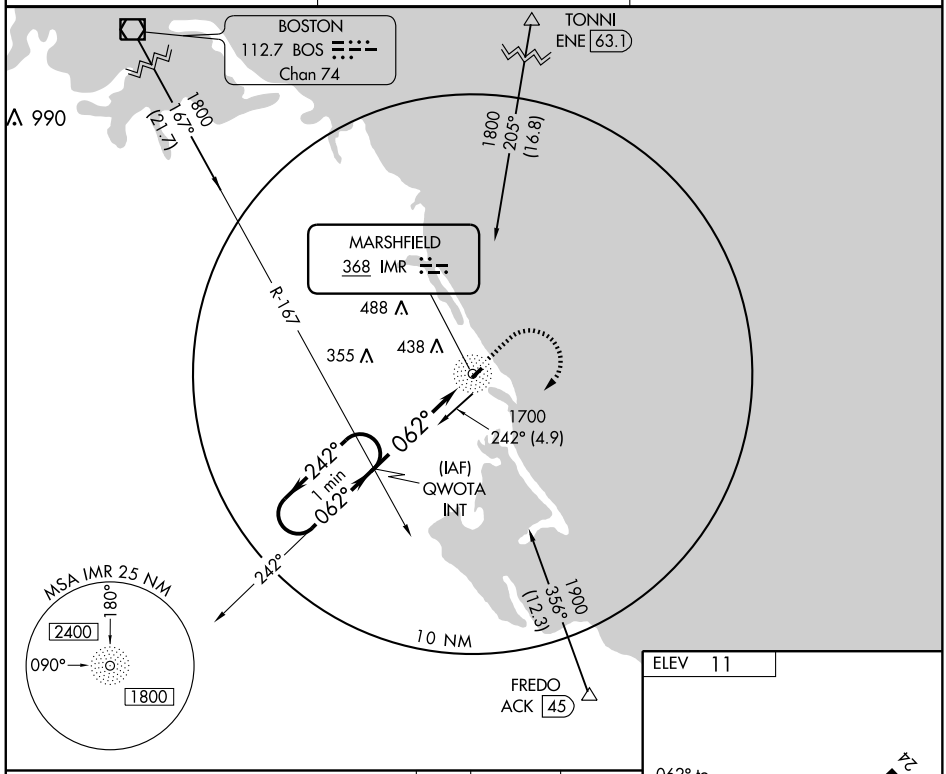
NDB RWY 6

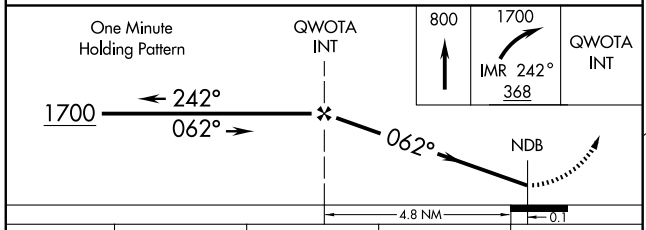
MARSHFIELD MUNI - GEORGE HARLOW FIELD (GHG)

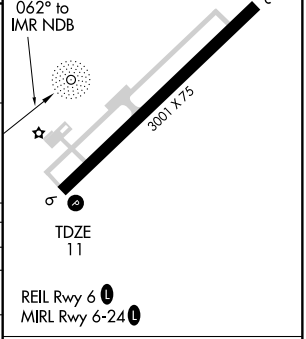
Obtain local altimeter setting on CTAF; when not received, use Boston-Logan altimeter setting.

MISSED APPROACH: Climb to 800 then climbing right turn to 1700 via IMR NDB bearing 242° to QWOTA Int and hold.

AWOS-3	BOSTON APP CON	UNICOM
120.0	124.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-6	580-1 569 (600-1)		NA	
CIRCLING	580-1 569 (600-1)	600-1 589 (600-1)	NA	
BOSTON-LOGAN ALTIMETER SETTING MINIMUMS				
S-6	640-1 629 (700-1)		NA	
CIRCLING	640-1 629 (700-1)	660-1 649 (700-1)	NA	

Knots	60	90	120	150	180
Min:Sec					

NE-1. 17 DEC 2009 to 14 JAN 2010

NDB IMR	APP CRS	Rwy ldg	3001
368	248°	TDZE	9
		Apt Elev	11

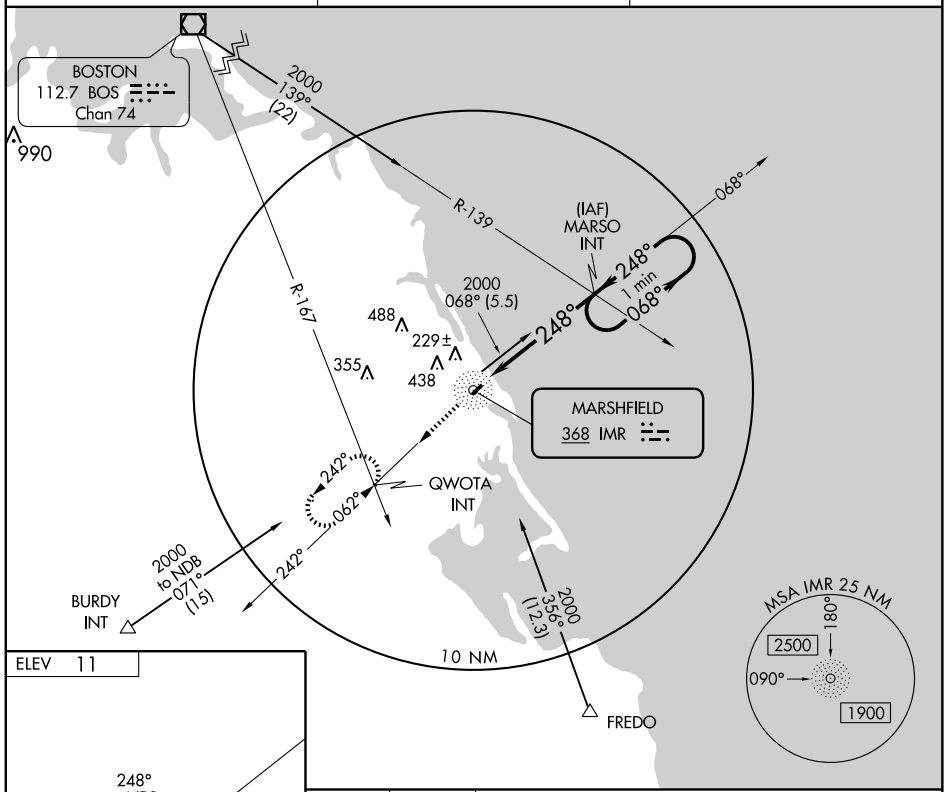
NDB RWY 24

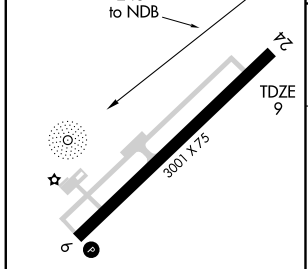
MARSHFIELD MUNI - GEORGE HARLOW FIELD (GHG)

Visibility reduction by helicopters NA.
When local altimeter setting not received, use Plymouth altimeter setting and increase all MDA 60 feet.

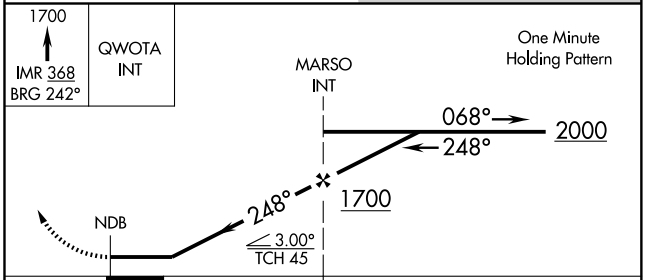
MISSED APPROACH: Climb to 1700 via 242° bearing from IMR NDB to QWOTA INT and hold.

AWOS-3	BOSTON APP CON	UNICOM
120.0	124.1	122.8 (CTAF) L





REIL Rwy 6 L
MIRL Rwy 6-24 L



FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CATEGORY	A	B	C	D
S-24	580-1	571 (600-1)	NA	
CIRCLING	580-1 569 (600-1)	620-1 609 (700-1)	NA	

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	3001
062°	TDZE	9
	Apt Elev	11

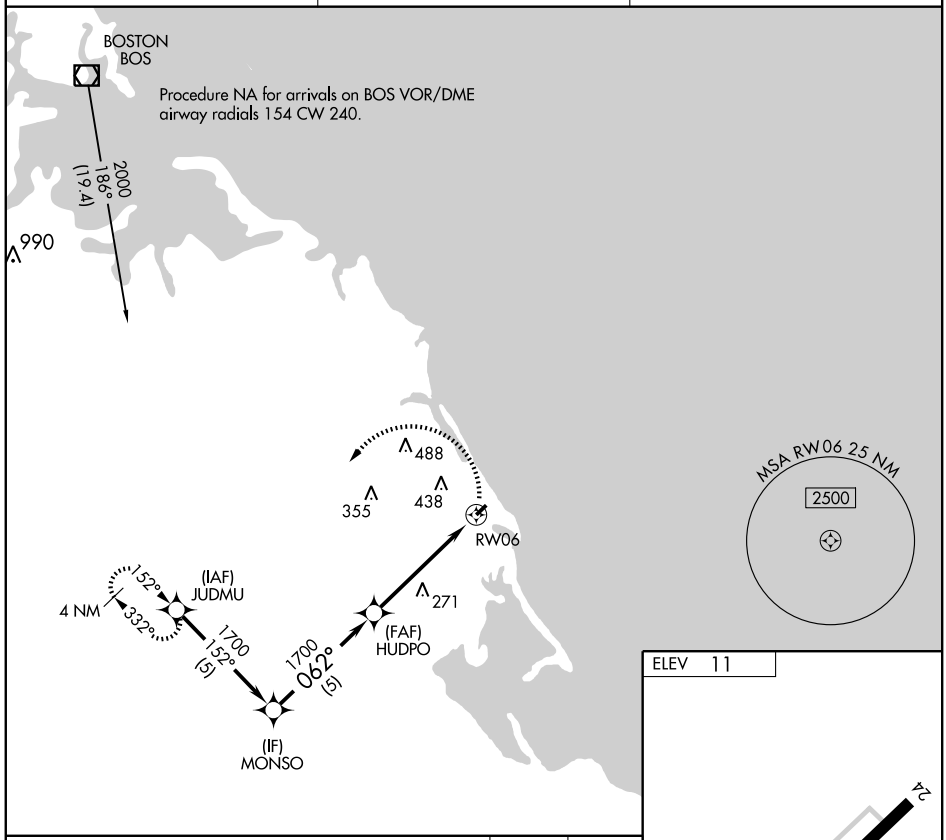
RNAV (GPS) RWY 6

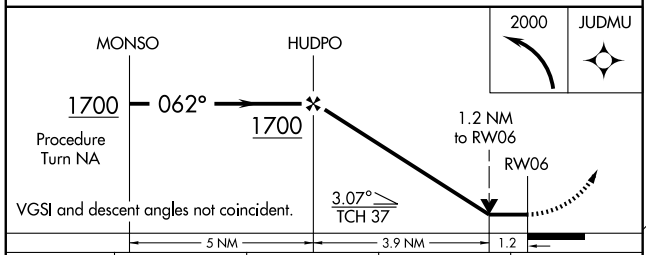
MARSHFIELD MUNI - GEORGE HARLOW FIELD (GHG)

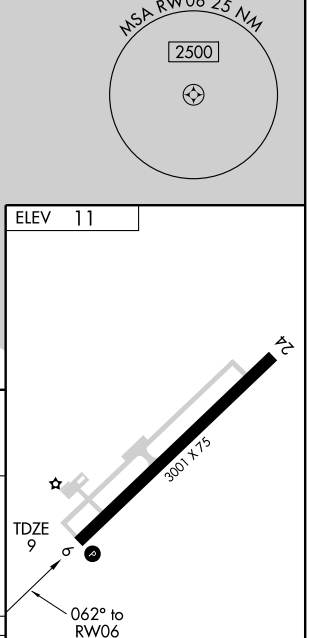
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Plymouth altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climbing left turn to 2000 direct JUDMU and hold.

AWOS-3	BOSTON APP CON	UNICOM
120.0	124.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	540-1	531 (600-1)	NA	
CIRCLING	560-1 549 (600-1)	620-1 609 (700-1)	NA	

REIL Rwy 6 L
MIRL Rwy 6-24 L

NE-1. 17 DEC 2009 to 14 JAN 2010

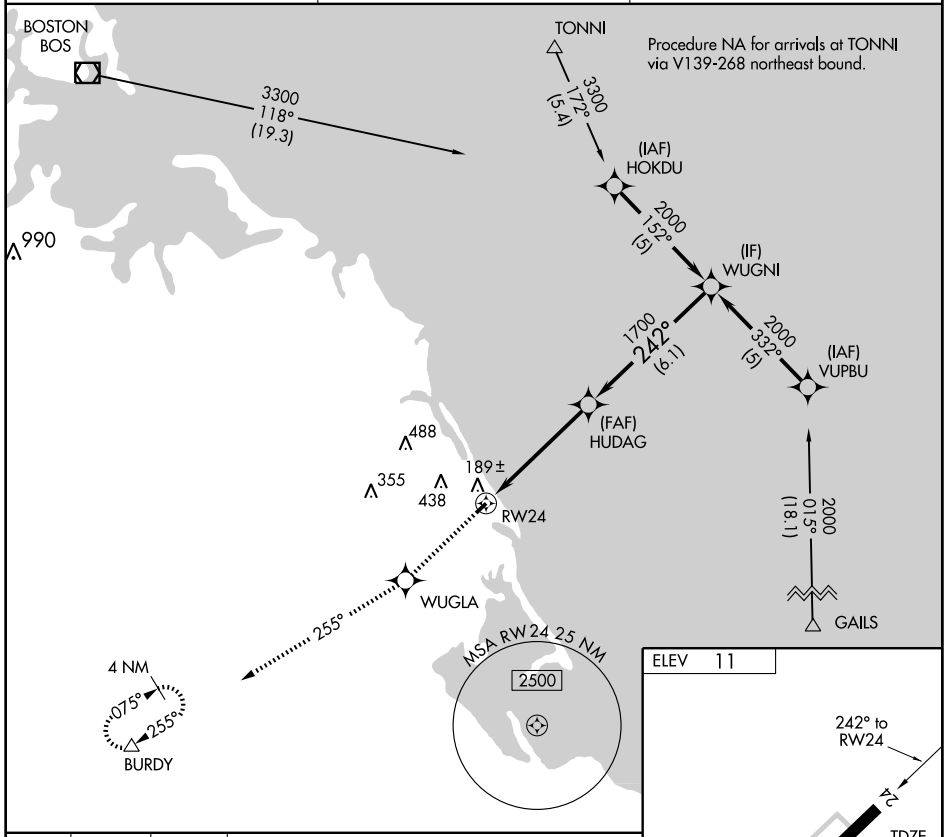
APP CRS	Rwy ldg	3001
242°	TDZE	9
	Apt Elev	11

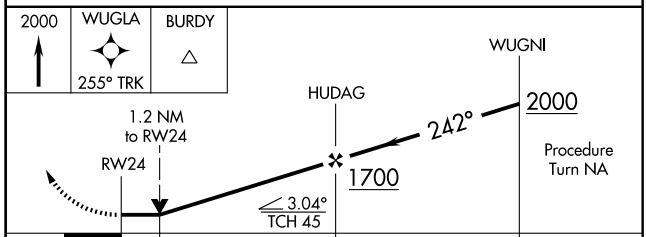
RNAV (GPS) RWY 24
MARSHFIELD MUNI - GEORGE HARLOW FIELD (GHG)

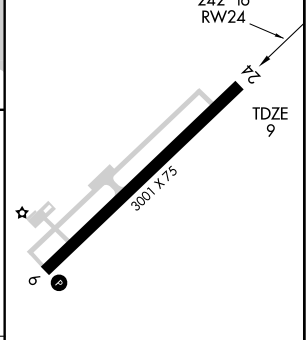
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Plymouth altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climb to 2000 direct WUGLA and via 255° track to BURDY and hold.

AWOS-3	BOSTON APP CON	UNICOM
120.0	124.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	440-1	431 (500-1)	NA	
CIRCLING	560-1 549 (600-1)	620-1 609 (700-1)	NA	

REIL Rwy 6 L
MIRL Rwy 6-24 L

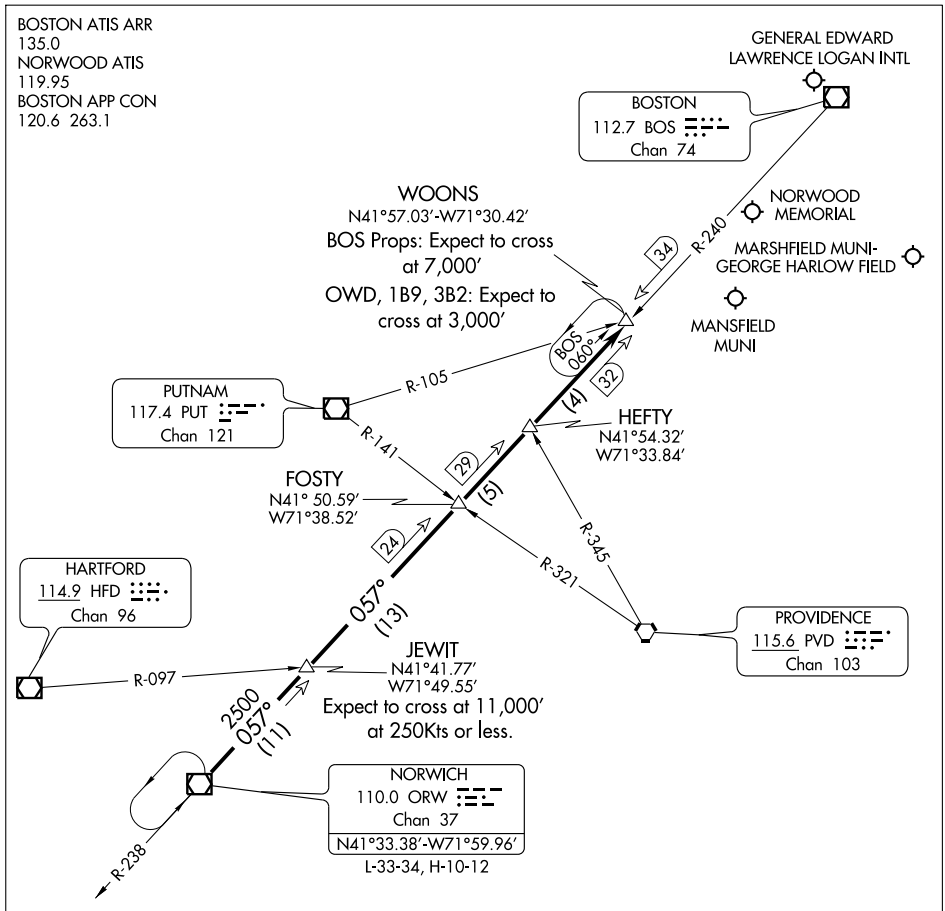
NE-1. 17 DEC 2009 to 14 JAN 2010

(ORW.WOONS1) 09239

WOONS ONE ARRIVAL

ST-58 (FAA)

BOSTON, MASSACHUSETTS



NOTE: Chart not to scale

NOTE: Applicable to props landing BOS and all aircraft landing OWD, 1B9 and GHG. Applicable 11,000 feet and above.

From over ORW VOR/DME via ORW R-057 to WOONS INT. Expect radar vectors to final.

VOR/DME GDM	APP CRS	Rwy ldg	N/A
110.6	292°	TDZE	N/A
Chan 43		Apt Elev	356

VOR or GPS-A

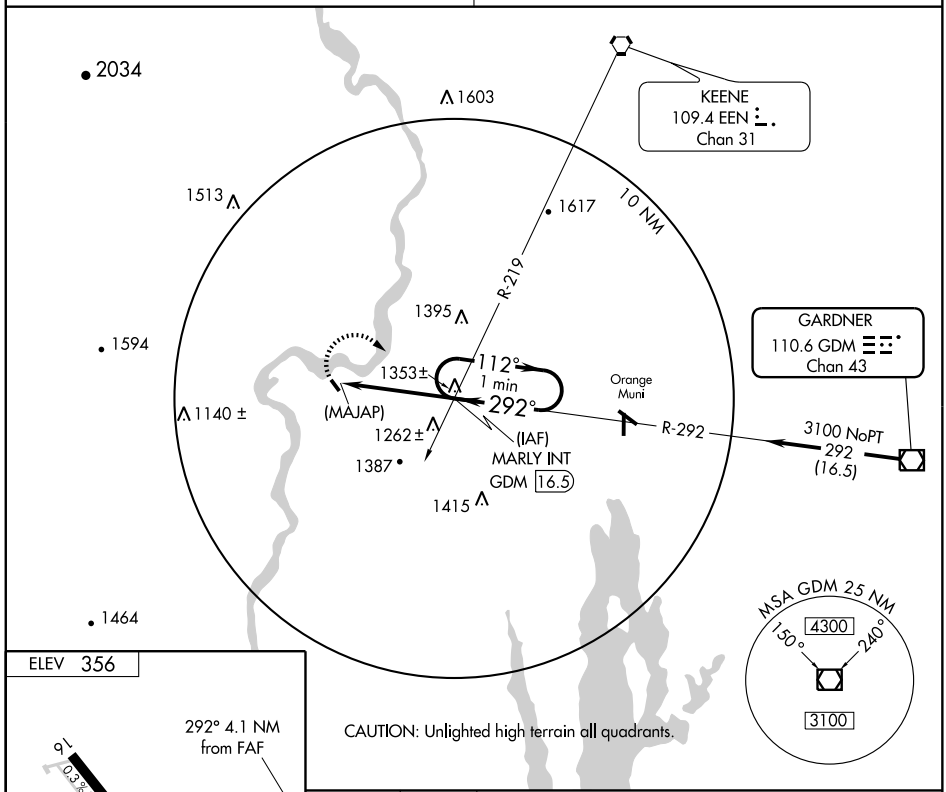
MONTAGUE/ TURNERS FALLS (ØB5)

Obtain local altimeter setting on CTAF; when not received, use Orange altimeter setting.

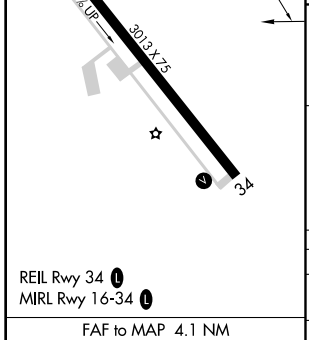
NA

MISSED APPROACH: Climbing right turn to 3100 via GDM R-292 to MARLY Int and hold.

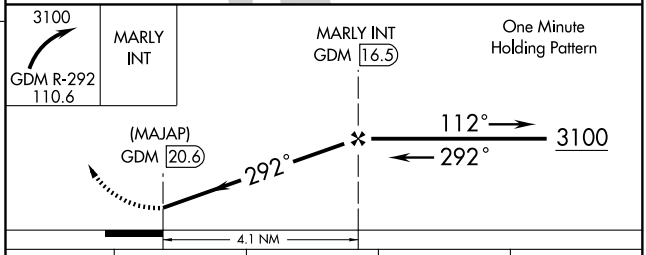
BOSTON CENTER	UNICOM
123.75 338.2	123.0 (CTAF) L



ELEV 356



REIL Rwy 34 L
MIRL Rwy 16-34 L



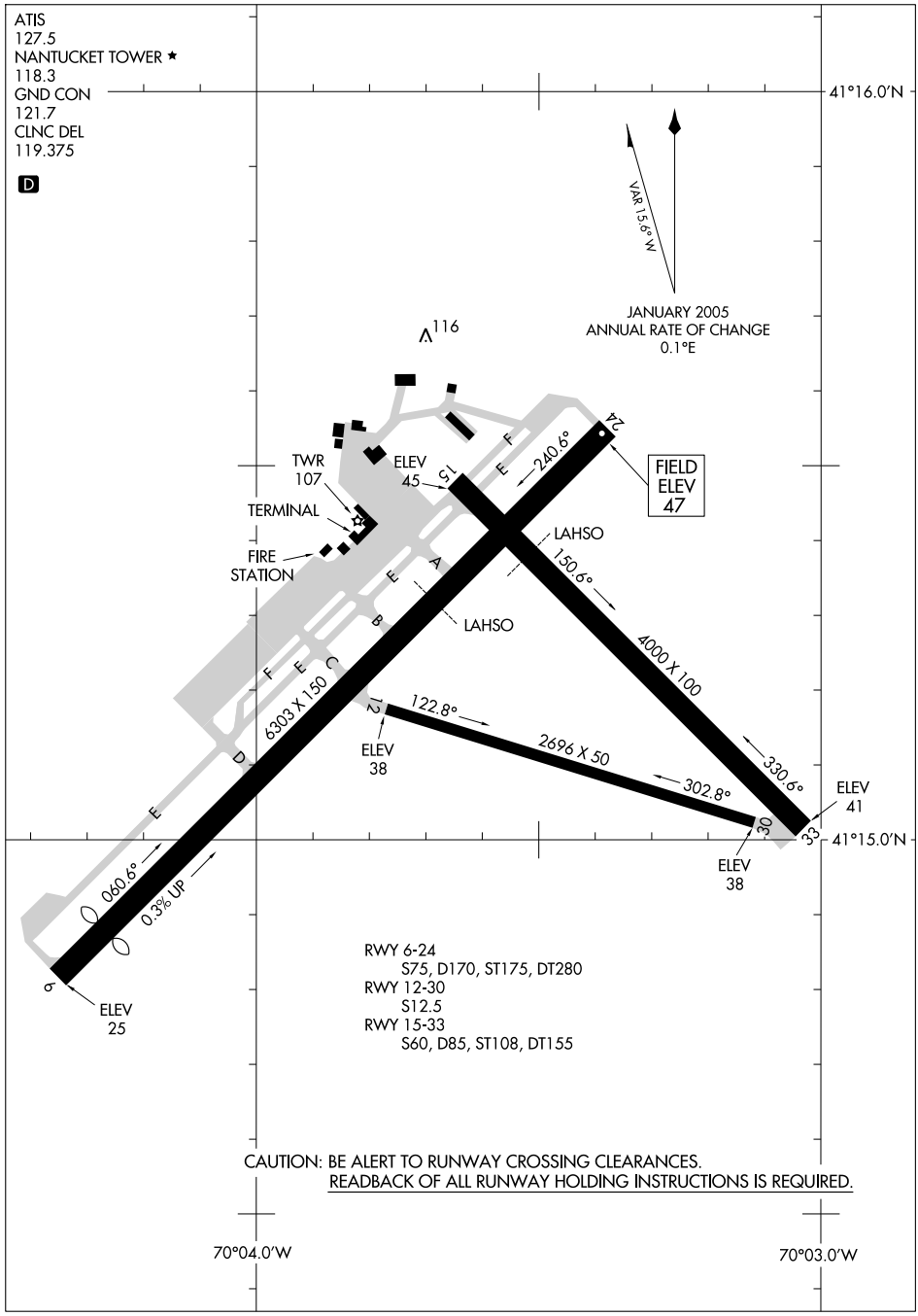
FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

CATEGORY	A	B	C	D
CIRCLING	1520-1¼ 1164 (1200-1¼)	1520-1½ 1164 (1200-1½)	1520-3 1164 (1200-3)	NA
ORANGE ALTIMETER SETTING MINIMUMS				
CIRCLING	1580-1¼ 1224 (1300-1¼)	1580-1½ 1224 (1300-1½)	1580-3 1224 (1300-3)	NA

AIRPORT DIAGRAM

AL-659 (FAA)

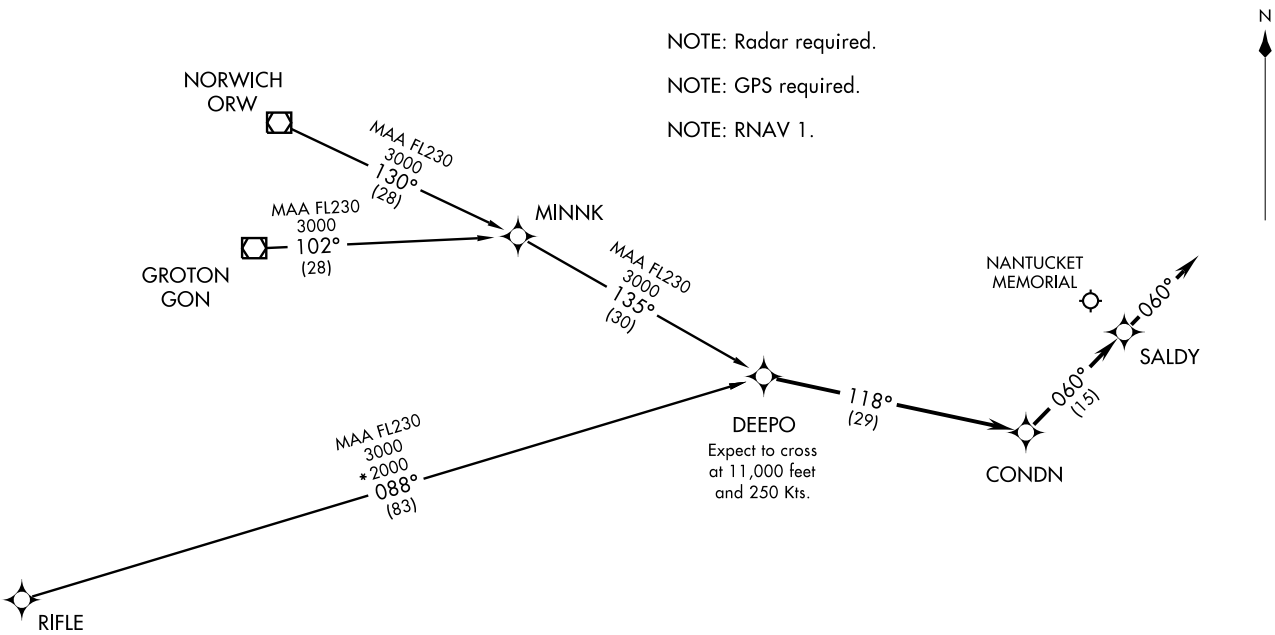
NANTUCKET MEMORIAL (ACK)
NANTUCKET, MASSACHUSETTS



CAPE APP CON
133.75 284.6
NANTUCKET ATIS
127.5
NANTUCKET TOWER
118.3 (CTAF)

GROTON TRANSITION (GON.DEEPO1)
NORWICH TRANSITION (ORW.DEEPO1)
RIFLE TRANSITION (RIFLE.DEEPO1)

. . . . From DEEPO, via 118° track to CONDN; thence via 060° track to SALDY. Depart SALDY heading 060°, expect radar vectors to final approach course.



NOTE: Chart not to scale.

(DEEPO.DEEPO1) 07354

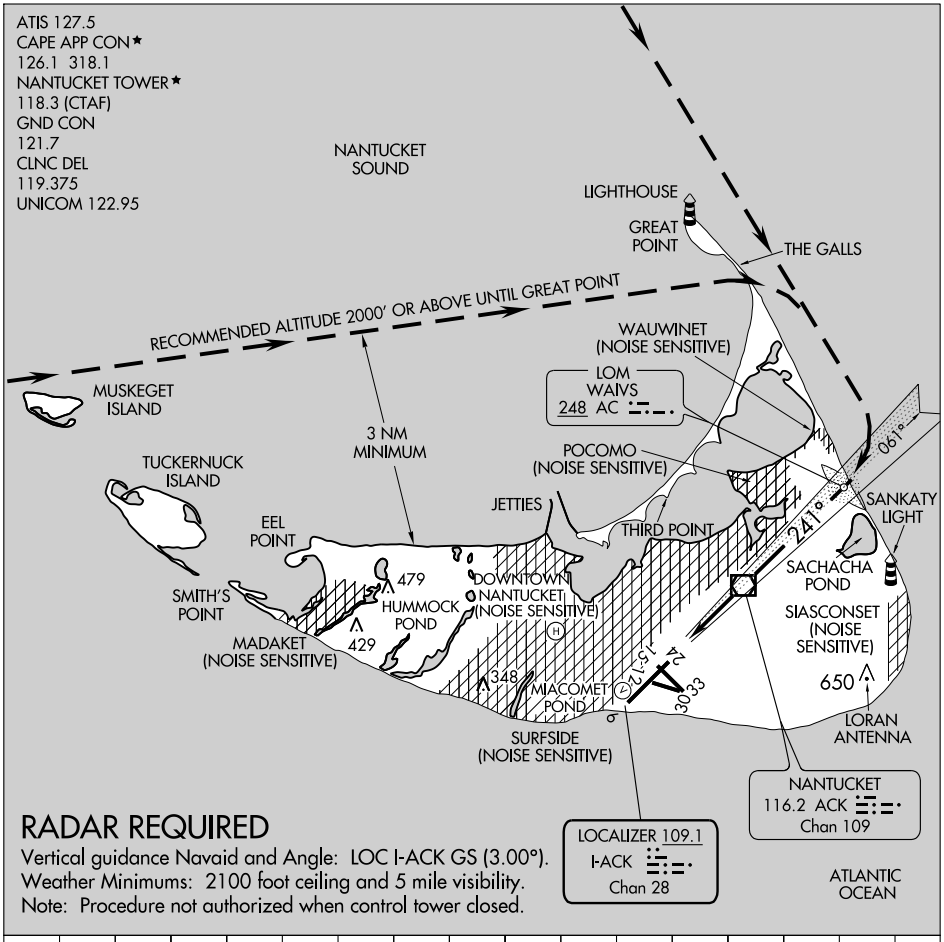
DEEPO ONE ARRIVAL (RNAV)

ST-659 (FAA)

NANTUCKET MEMORIAL
NANTUCKET, MASSACHUSETTS

GREAT POINT VISUAL RWY 24 AL-659 (FAA)

NANTUCKET MEMORIAL (ACK)
NANTUCKET, MASSACHUSETTS



RADAR REQUIRED

Vertical guidance Navaid and Angle: LOC I-ACK GS (3.00°).
Weather Minimums: 2100 foot ceiling and 5 mile visibility.
Note: Procedure not authorized when control tower closed.

	1 NM	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

LOC/DME I-RNE	APP CRS	Rwy ldg 5752
109.1	061°	TDZE 39
Chan 28		Apt Elev 48

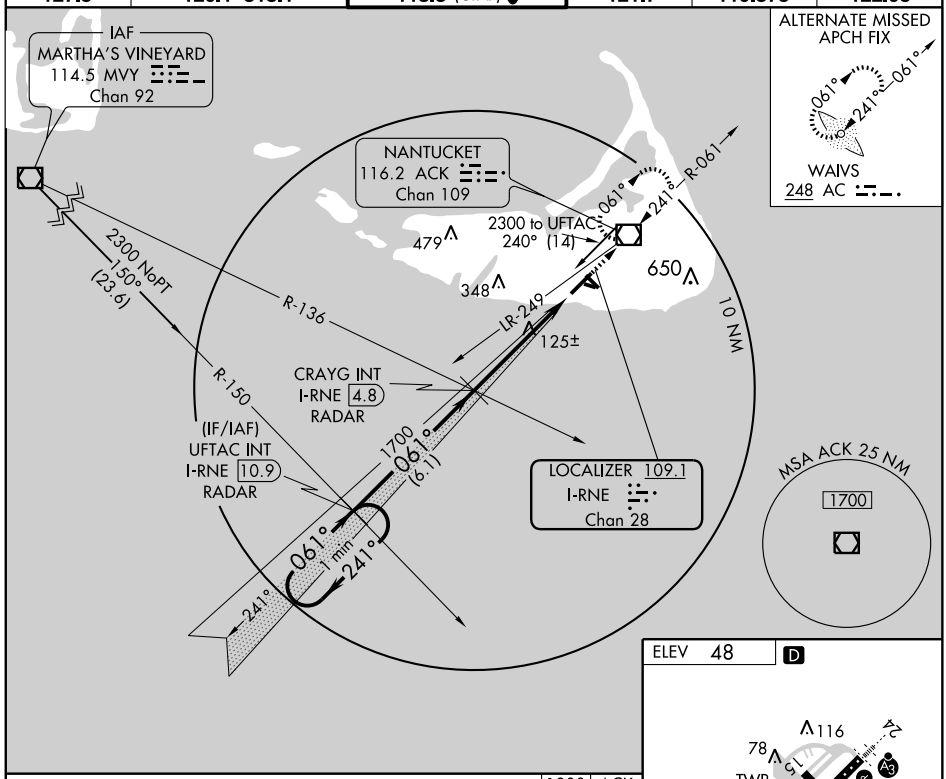
ILS or LOC RWY 6
NANTUCKET MEMORIAL (ACK)

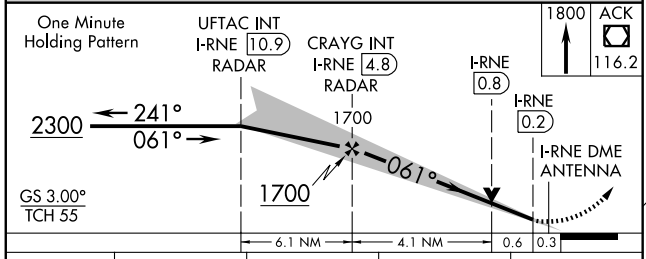
When local altimeter setting not received, use Hyannis altimeter setting and increase all DA 63 feet and all MDA 80 feet; increase S-ILS 6 all Cats visibility to RVR 5000 and S-LOC Cats C and D visibility to RVR 6000. VDP NA when using Hyannis altimeter setting. Inoperative table does not apply to S-LOC 6 Cat C when using Hyannis altimeter setting.

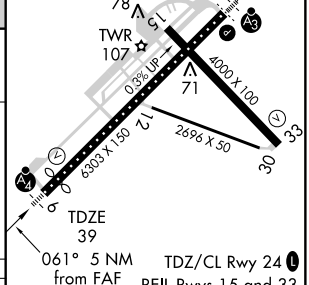
MALSF

MISSED APPROACH: Climb to 1800 direct ACK VOR/DME and hold, continue climb-in-hold to 1800.

ATIS	CAPE APP CON★	NANTUCKET TOWER ★	GND CON	CLNC DEL	UNICOM
127.5	126.1 318.1	118.3 (CTAF) L	121.7	119.375	122.95







TDZ/CL Rwy 24 L
REIL Rwys 15 and 33
MIRL Rwy 15-33 L
HIRL Rwy 6-24 L

CATEGORY	A	B	C	D
S-ILS 6	239/40 200 (200-¾)			
S-LOC 6	380/40 341 (400-¾)			380/50 341 (400-1)
CIRCLING	440-1 392 (400-1)	500-1 452 (500-1)	500-1½ 452 (500-1½)	600-2 552 (600-2)

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-ACK 109.1 Chan 28	APP CRS 241°	Rwy ldg 6303 TDZE 48 Apt Elev 48

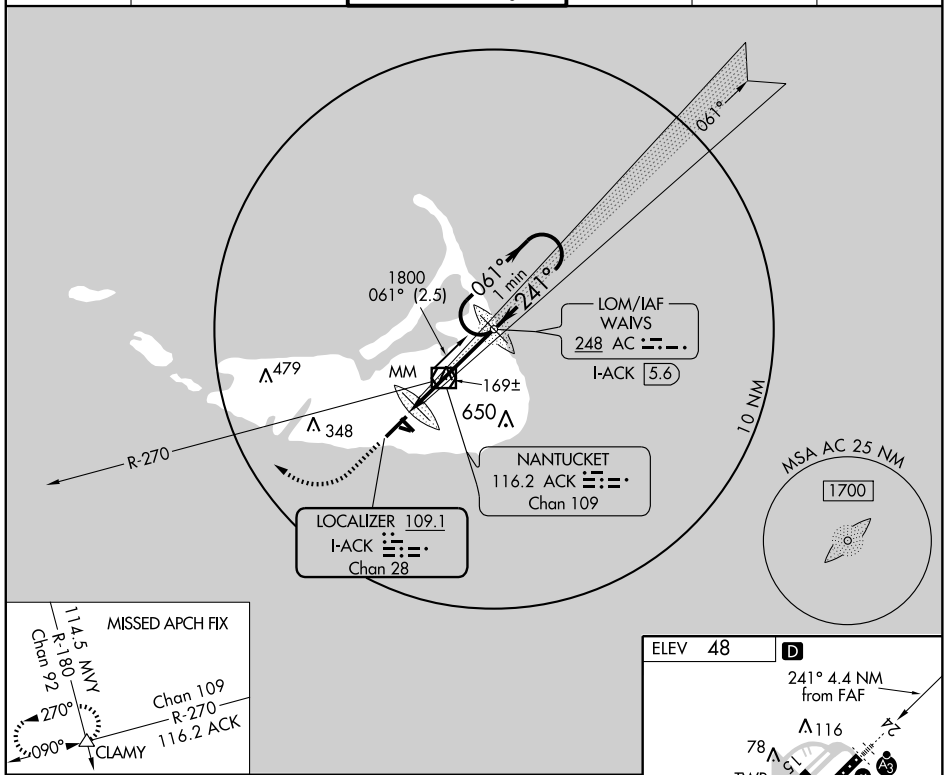
ILS or LOC RWY 24
NANTUCKET MEMORIAL (ACK)

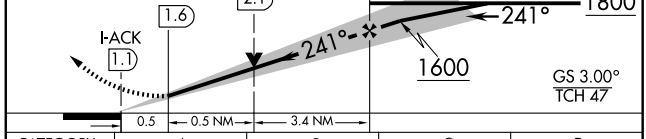
When local altimeter setting not received, use Hyannis altimeter setting and increase all DA to 63 feet and all MDA 80 feet; increase S-LOC 24 Cat C visibility to RVR 4000 and Cat D visibility to RVR 5000. VDP NA when using Hyannis altimeter setting. For inoperative SSALR when using Hyannis altimeter setting, increase S-ILS 24 visibility to RVR 5000. ADF or DME Required.

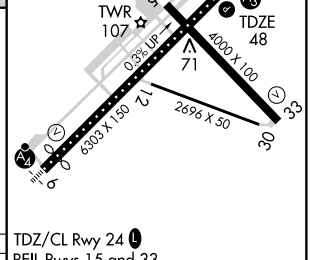
SSALR

MISSED APPROACH: Climb to 700 then climbing right turn to 2500 via heading 310° and ACK VOR/DME R-270 to CLAMY Int and hold.

ATIS	CAPE APP CON ★	NANTUCKET TOWER ★	GND CON	CLNC DEL	UNICOM
127.5	126.1 318.1	118.3 (CTAF) L	121.7	119.375	122.95







TDZ/CL Rwy 24 L
REIL Rwys 15 and 33
MIRL Rwy 15-33 L
HIRL Rwy 6-24 L

CATEGORY	A	B	C	D
S-ILS 24	248/18 200 (200-½)			
S-LOC 24	420/24 372 (400-½)			420/40 372 (400-¾)
CIRCLING	440-1 392 (400-1)	500-1 452 (500-1)	500-1½ 452 (500-1½)	600-2 552 (600-2)

FAF to MAP 4.4 NM

Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

NE-1. 17 DEC 2009 to 14 JAN 2010

ACK VOR/DME	APP CRS	Rwy ldg 6303
116.2	241°	TDZE 48
Chan 109		Apt Elev 48

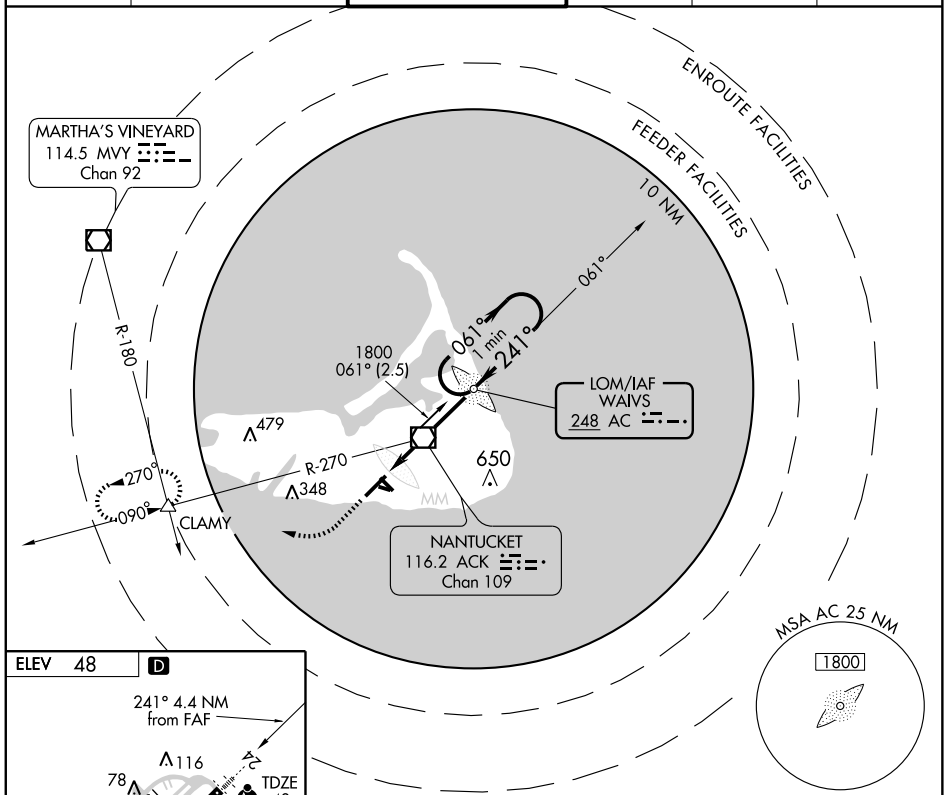
NDB RWY 24
NANTUCKET MEMORIAL (ACK)

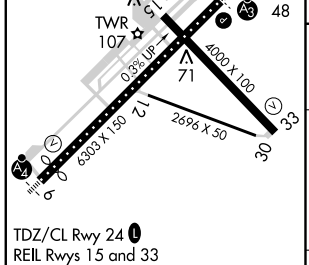
If local altimeter setting not received, use Hyannis altimeter setting and increase all MDAs 80 feet.

SSALR

MISSED APPROACH: Climb to 700 then climbing right turn to 2500 via heading 310° and ACK VOR/DME R-270 to CLAMY Int and hold.

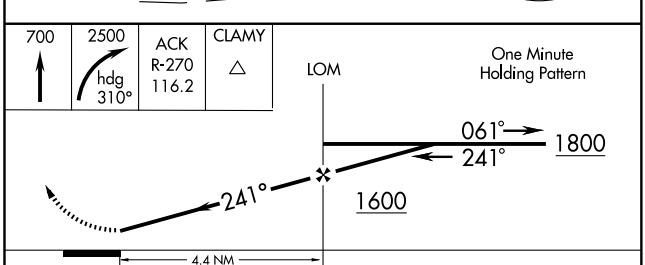
ATIS	CAPE APP CON ★	NANTUCKET TOWER ★	GND CON	CLNC DEL	UNICOM
127.5	126.1 318.1	118.3 (CTAF) L	121.7	119.375	122.95





TDZ/CL Rwy 24 L
REIL Rwys 15 and 33
MIRL Rwy 15-33 L
HIRL Rwy 6-24 L

FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28



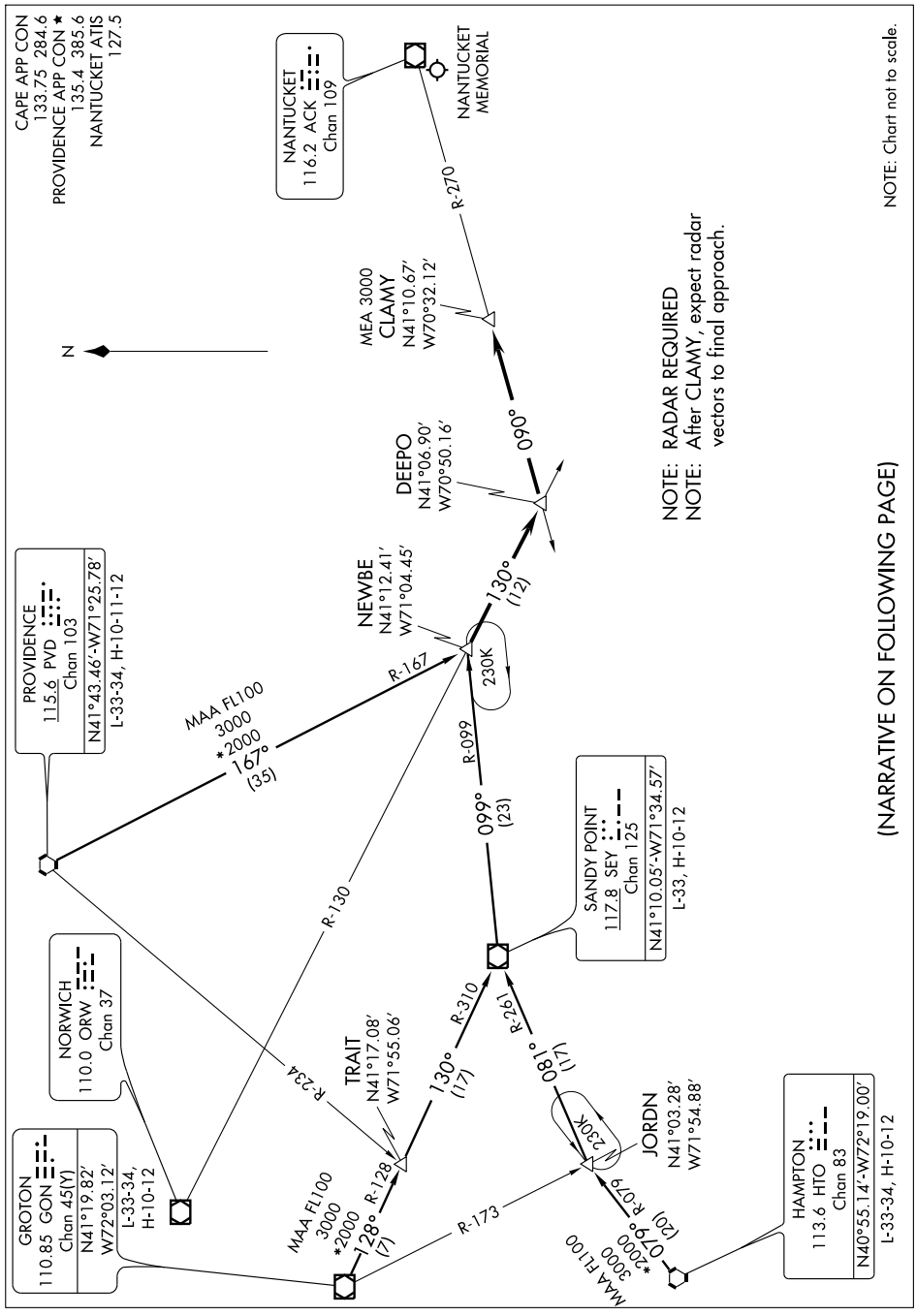
CATEGORY	A	B	C	D
S-24	480/40 432 (500-¾)			480/60 432 (500-1¼)
CIRCLING	480-1 432 (500-1)	500-1 452 (500-1)	500-1½ 452 (500-1½)	600-2 552 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

NEWBE ONE ARRIVAL

ST-659 (FAA)

NANTUCKET MEMORIAL
NANTUCKET, MASSACHUSETTS



ARRIVAL DESCRIPTION

GROTON TRANSITION (GON.NEWBE1): From over GON VOR/DME via GON R-128 to TRAIT INT, then via SEY R-310 to SEY VOR/DME, then via SEY R-099 to NEWBE INT. Thence . . . .

HAMPTON TRANSITION (HTO.NEWBE1): From over HTO VORTAC via HTO R-079 to JORDN INT, then via SEY R-261 to SEY VOR/DME, then via SEY R-099 to NEWBE INT. Thence . . . .

PROVIDENCE TRANSITION (PVD.NEWBE1): From over PVD VORTAC via PVD R-167 to NEWBE INT. Thence . . . .

. . . . From over NEWBE INT via ORW R-130 to DEEPO INT, then via the ACK R-270 to CLAMY INT (MEA 3000). After CLAMY INT, expect radar vectors to the final approach course.

WAAS CH 81912 W06A	APP CRS 061°	Rwy ldg 5752 TDZE 39 Apt Elev 48

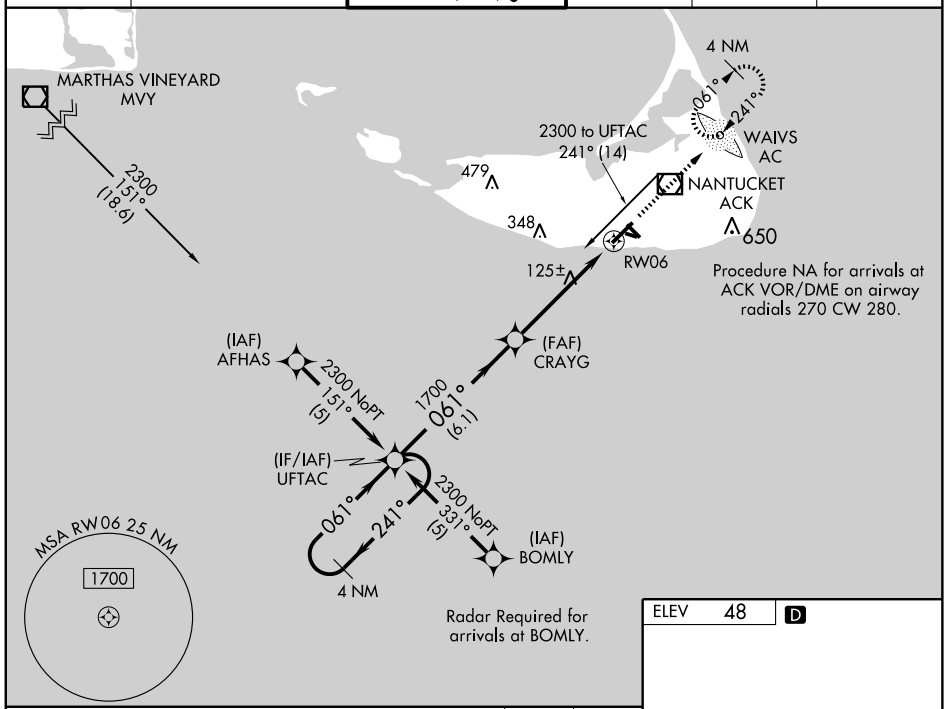
RNAV (GPS) RWY 6
NANTUCKET MEMORIAL (ACK)

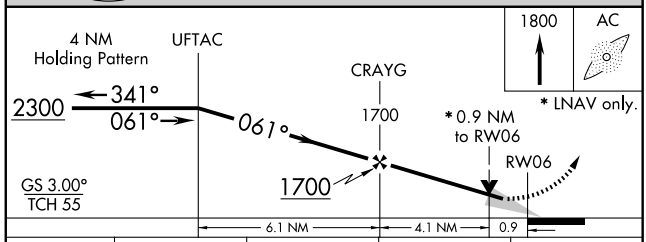
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Hyannis altimeter setting and increase all DA 63 feet and all MDA 80 feet; increase LPV all Cats visibility to RVR 5000, LNAV/VNAV all Cats and LNAV Cats C and D visibility to RVR 6000. Baro-VNAV and VDP NA when using Hyannis altimeter setting. Inoperative table does not apply to LNAV/VNAV all Cats, and LNAV Cat C when using Hyannis altimeter setting.

MALSF

MISSED APPROACH: Climb to 1800 direct WAIVS LOM and hold.

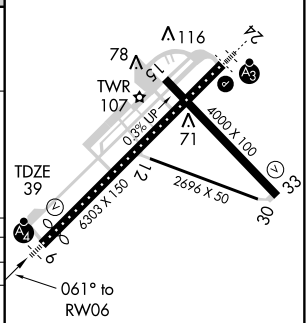
ATIS	CAPE APP CON ★	NANTUCKET TOWER ★	GND CON	CLNC DEL	UNICOM
127.5	126.1 318.1	118.3 (CTAF) L	121.7	119.375	122.95





CATEGORY	A	B	C	D
LPV DA	239/40 200 (200-¾)			
LNAV/VNAV DA	352/40 313 (400-¾)			352/50 313 (400-1)
LNAV MDA	380/40 341 (400-¾)			380/50 341 (400-1)
CIRCLING	440-1 392 (400-1)	500-1 452 (500-1)	500-1½ 452 (500-1½)	600-2 552 (600-2)

ELEV 48 D



TDZ/CL Rwy 24 L
REIL Rwys 15 and 33
MIRL Rwy 15-33 L
HIRL Rwy 6-24 L

WAAS CH 93612 W24A	APP CRS 241°	Rwy ldg 6303 TDZE 48 Apt Elev 48

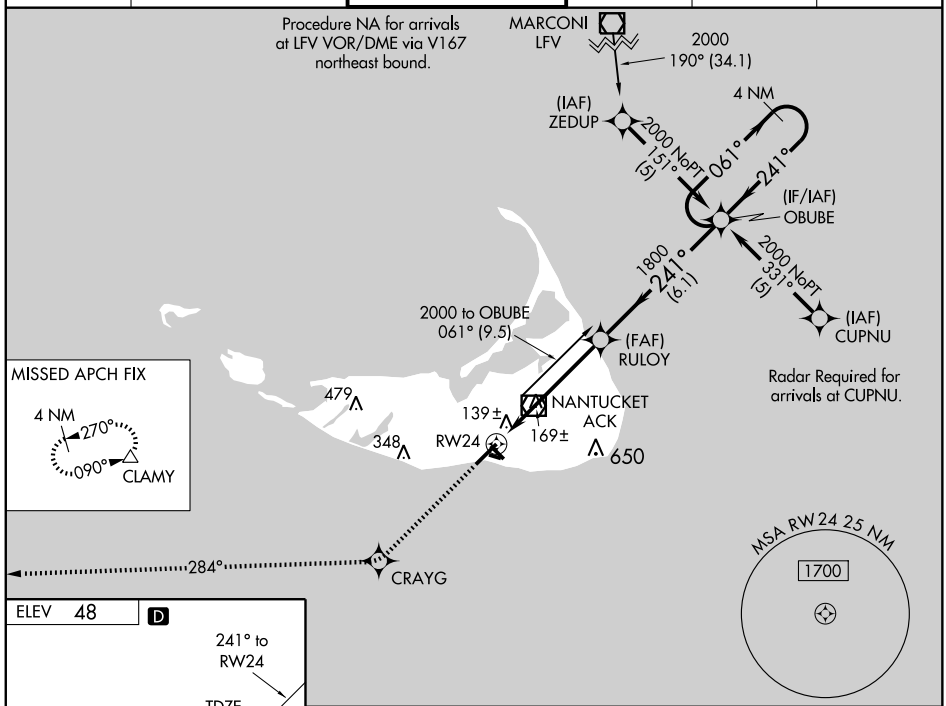
RNAV (GPS) RWY 24
NANTUCKET MEMORIAL (ACK)

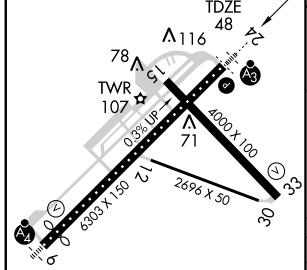
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Hyannis altimeter setting and increase all DA 63 feet and all MDA 80 feet; increase LNAV/VNAV all Cats and LNAV Cat C visibility ¼ mile. Baro-VNAV and VDP NA when using Hyannis altimeter setting. For inoperative SSALR, increase LNAV Cat D visibility to RVR 6000. For inoperative SSALR when using Hyannis altimeter setting, increase LPV all Cats visibility to RVR 5000.

SSALR

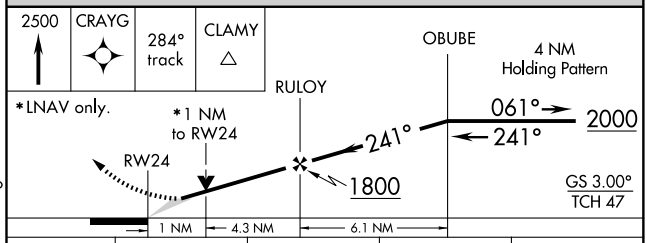
MISSED APPROACH: Climb to 2500 direct CRAYG and via 284° track to CLAMY and hold.

ATIS	CAPE APP CON ★	NANTUCKET TOWER ★	GND CON	CLNC DEL	UNICOM
127.5	126.1 318.1	118.3 (CTAF) L	121.7	119.375	122.95





TDZ/CL Rwy 24 L
REIL Rwys 15 and 33
MIRL Rwy 15-33 L
HIRL Rwy 6-24 L



CATEGORY	A	B	C	D
LPV DA	248/24 200 (200-½)			
LNAV/VNAV DA	435/40 387 (400-¾)			
LNAV MDA	420/24 372 (400-½)			420/50 372 (400-1)
CIRCLING	440-1 392 (400-1)	500-1 452 (500-1)	500-1½ 452 (500-1½)	600-2 552 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

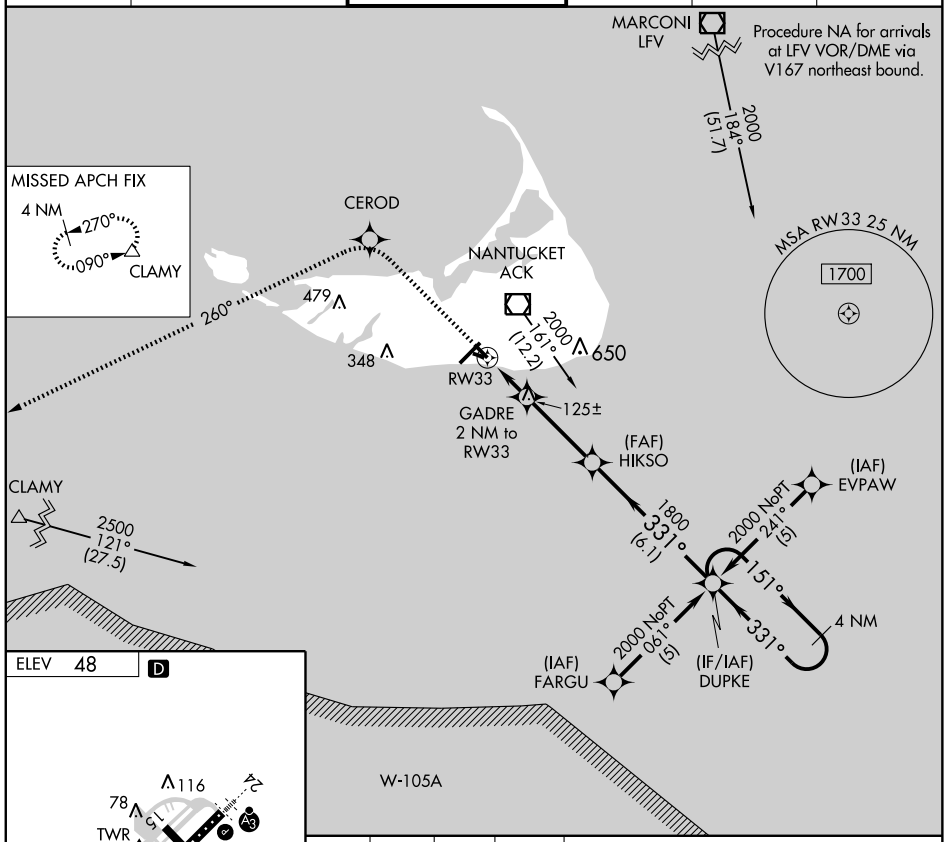
APP CRS	Rwy ldg	4000
331°	TDZE	44
	Apt Elev	48

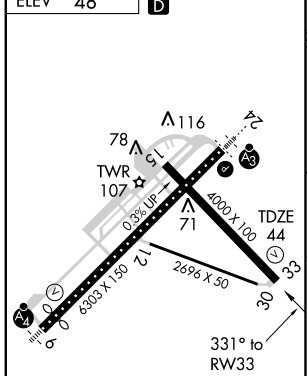
RNAV (GPS) RWY 33
NANTUCKET MEMORIAL (ACK)

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Hyannis altimeter setting and increase all MDA 80 feet; increase LNAV Cats C and D visibility ¼ mile. VDP NA when using Hyannis altimeter setting.

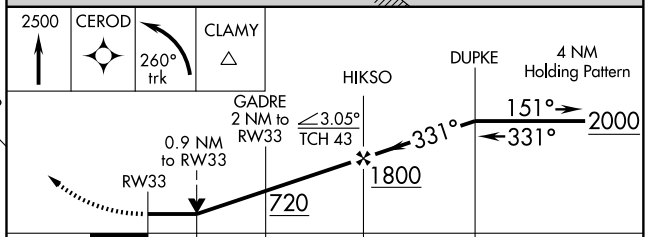
MISSED APPROACH: Climb to 2500 direct CEROD and left turn via 260° track to CLAMY and hold.

ATIS	CAPE APP CON ★	NANTUCKET TOWER ★	GND CON	CLNC DEL	UNICOM
127.5	126.1 318.1	118.3 (CTAF) L	121.7	119.375	122.95





TDZ/CL Rwy 24 L
REIL Rwys 15 and 33
MIRL Rwy 15-33 L
HIRL Rwy 6-24 L



CATEGORY	A	B	C	D
LNAV MDA	380-1 336 (400-1)			
CIRCLING	440-1 392 (400-1)	500-1 452 (500-1)	500-1½ 452 (500-1½)	600-2 552 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

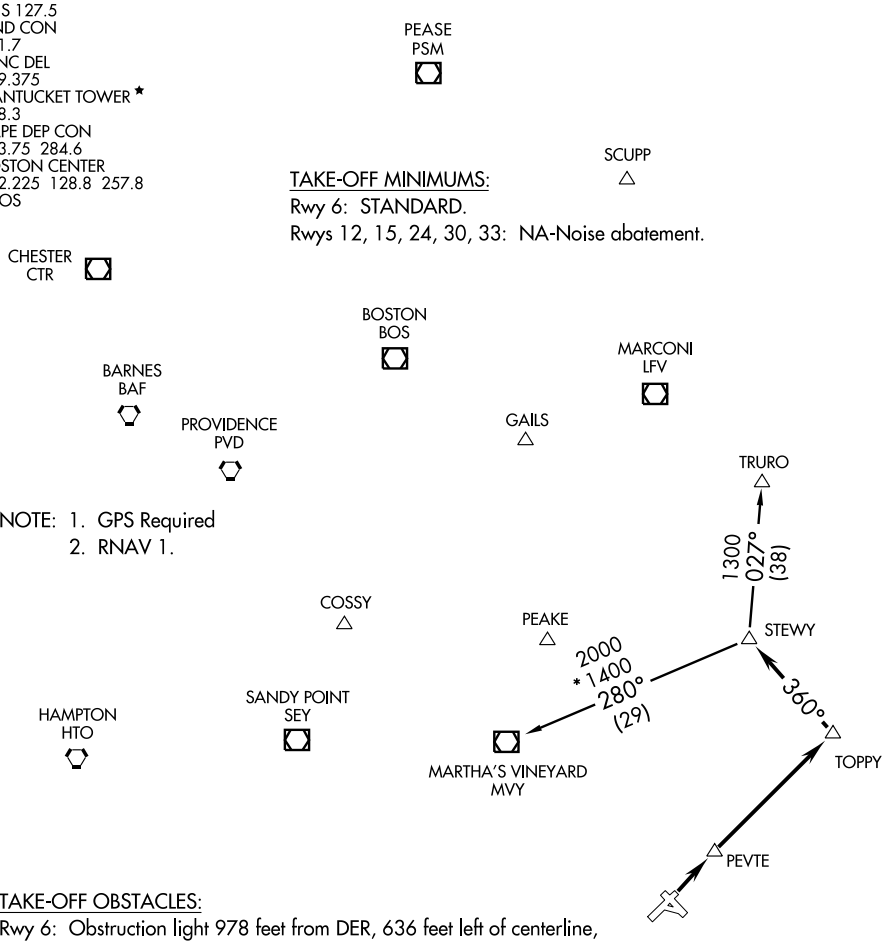
(STEWY1.STEWY) 07354 SL-659 (FAA)

STEWY ONE DEPARTURE (RNAV)

NANTUCKET MEMORIAL (ACK)
NANTUCKET, MASSACHUSETTS

ATIS 127.5
GND CON
121.7
CLNC DEL
119.375
NANTUCKET TOWER ★
118.3
CAPE DEP CON
133.75 284.6
BOSTON CENTER
132.225 128.8 257.8
ASOS

TAKE-OFF MINIMUMS:
Rwy 6: STANDARD.
Rwys 12, 15, 24, 30, 33: NA-Noise abatement.



NOTE: 1. GPS Required
2. RNAV 1.

TAKE-OFF OBSTACLES:
Rwy 6: Obstruction light 978 feet from DER, 636 feet left of centerline, 14 feet AGL/73 feet MSL,
Trees, 1827 feet from DER, 480 feet right of centerline, 15 feet AGL/75 feet MSL,
Multiple trees beginning 3586 feet from DER, 1134 feet left of centerline up to 60 feet AGL/139 feet MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

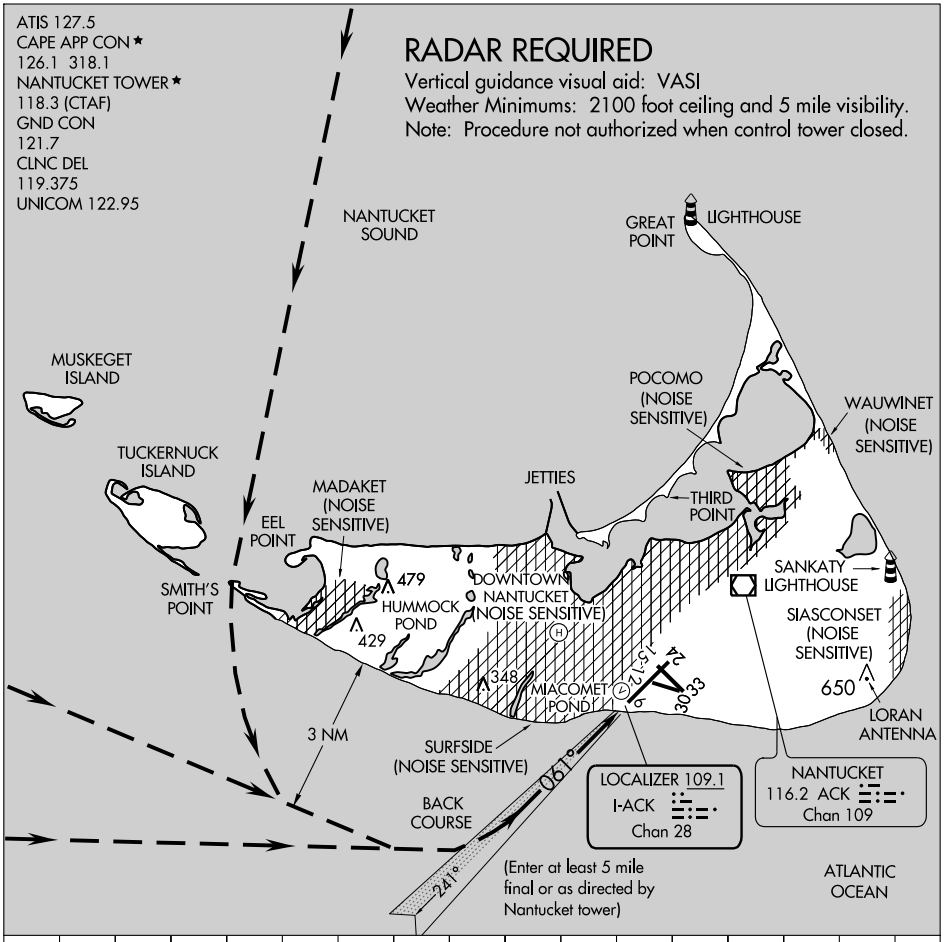
TAKE-OFF RUNWAY 6: Climb to 2000 direct PEVTE, direct TOPPY, then via 360° track to STEWY, thence. . .
. . .via transition/route or assigned fix. Expect filed altitude 10 minutes after departure.

TRURO TRANSITION (STEWY1.TRURO): From over STEWY INT via 027° track to TRURO INT.
MVY TRANSITION (STEWY1.MVY): From over STEWY INT via 280° track to MVY VOR/DME.

TUCKERNUCK VISUAL RWY 6

AL-659 (FAA)

NANTUCKET MEMORIAL (ACK)
NANTUCKET, MASSACHUSETTS



	1 NM	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

ACK VOR/DME 116.2 Chan 109	APP CRS 240°	Rwy ldg 6303 TDZE 48 Apt Elev 48

VOR RWY 24

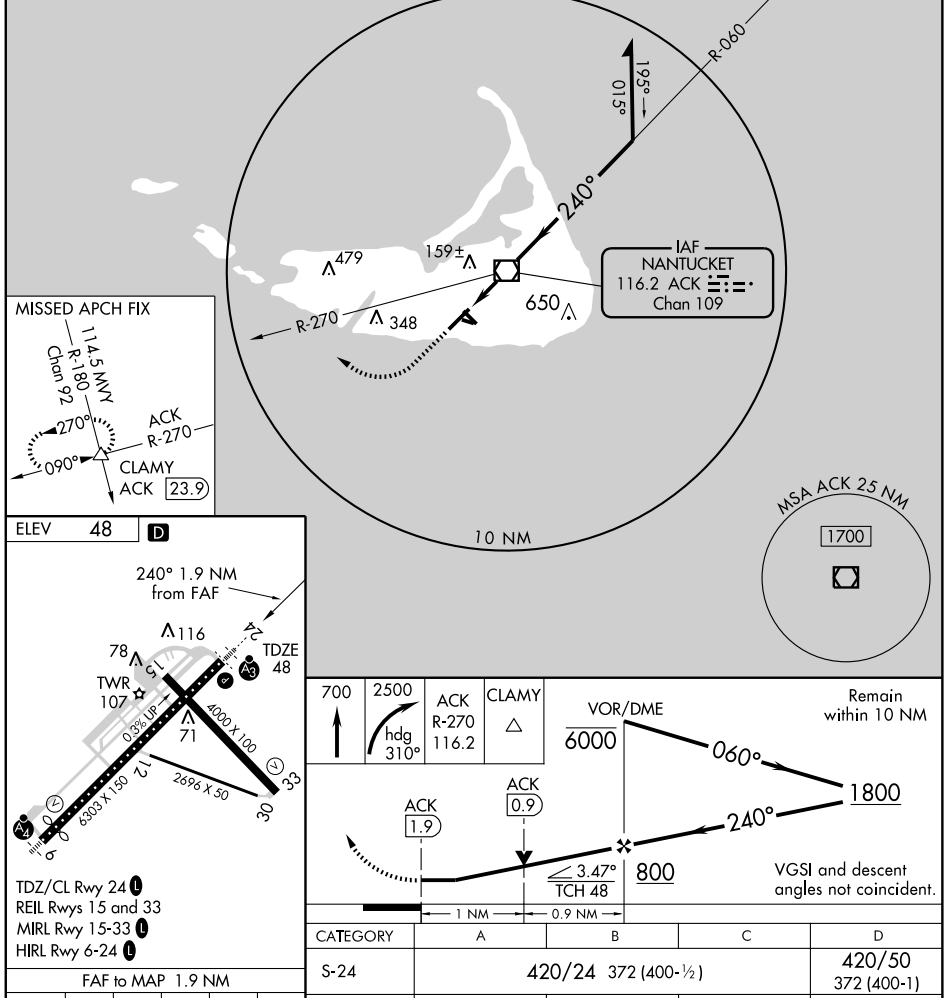
NANTUCKET MEMORIAL (ACK)

When local altimeter setting not received, use Hyannis altimeter setting and increase all MDA 80 feet; increase S-24 Cat C visibility to RVR 4000. VDP NA when using Hyannis altimeter setting. For Inoperative SSALR, increase S-24 Cat D visibility to RVR 6000.

SSALR

MISSED APPROACH: Climb to 700 then climbing right turn to 2500 via heading 310° and ACK VOR/DME R-270 to CLAMY INT/ACK 23.9 DME and hold.

ATIS	CAPE APP CON ★	NANTUCKET TOWER ★	GND CON	CLNC DEL	UNICOM
127.5	126.1 318.1	118.3 (CTAF) L	121.7	119.375	122.95



TDZ/CL Rwy 24 L
REIL Rwys 15 and 33
MIRL Rwy 15-33 L
HIRL Rwy 6-24 L

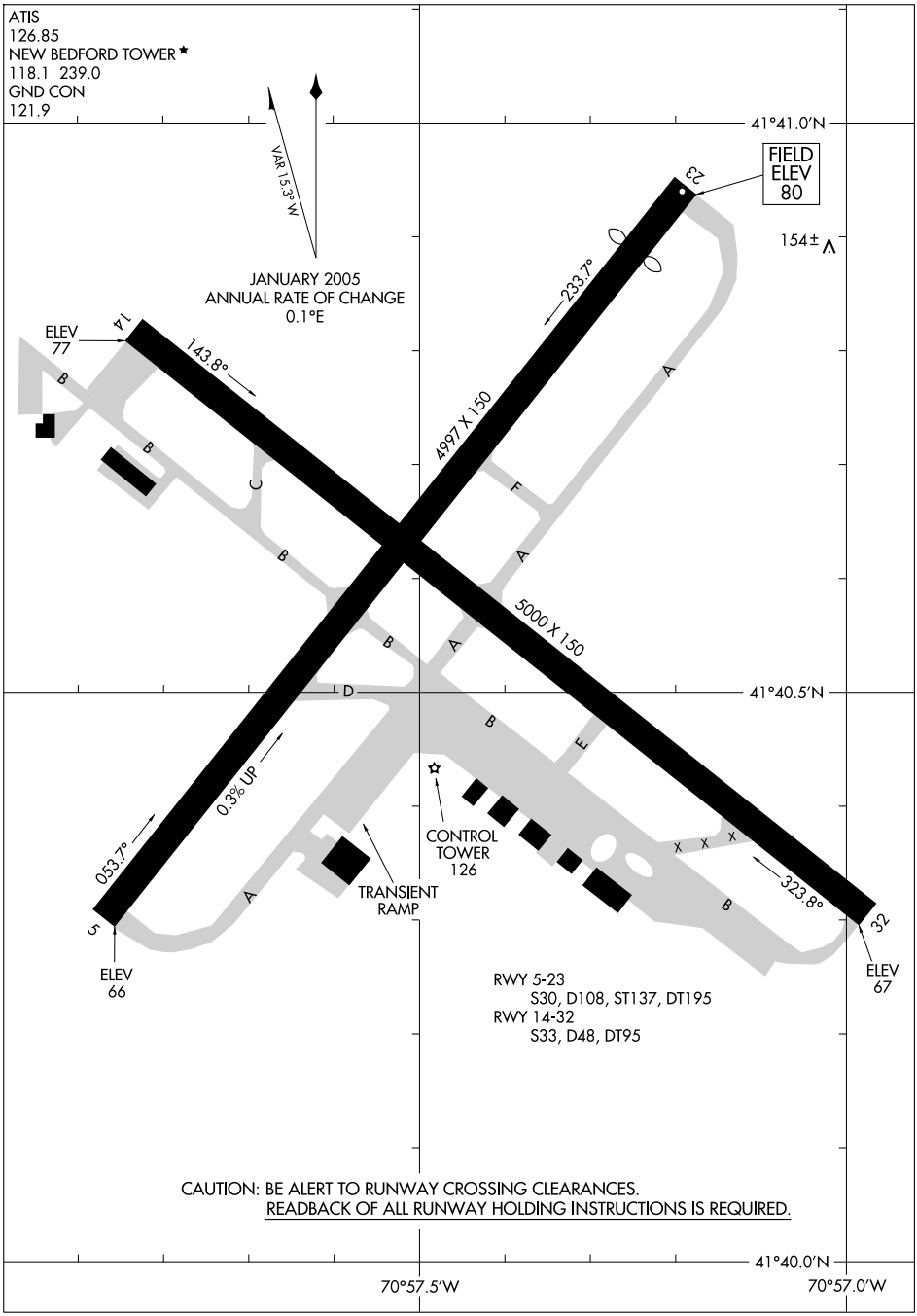
FAF to MAP 1.9 NM					
Knots	60	90	120	150	180
Min:Sec	1:54	1:16	0:57	0:46	0:38

CATEGORY	A	B	C	D
S-24	420/24 372 (400-½)			420/50 372 (400-1)
CIRCLING	440-1 392 (400-1)	500-1 452 (500-1)	500-1½ 452 (500-1½)	600-2 552 (600-2)

AIRPORT DIAGRAM

AL-644 (FAA)

NEW BEDFORD RGNL (EWB)
NEW BEDFORD, MASSACHUSETTS



LOC/DME I-EWB	APP CRS	Rwy ldg	4997
109.7	054°	TDZE	72
Chan 34		Apt Elev	80

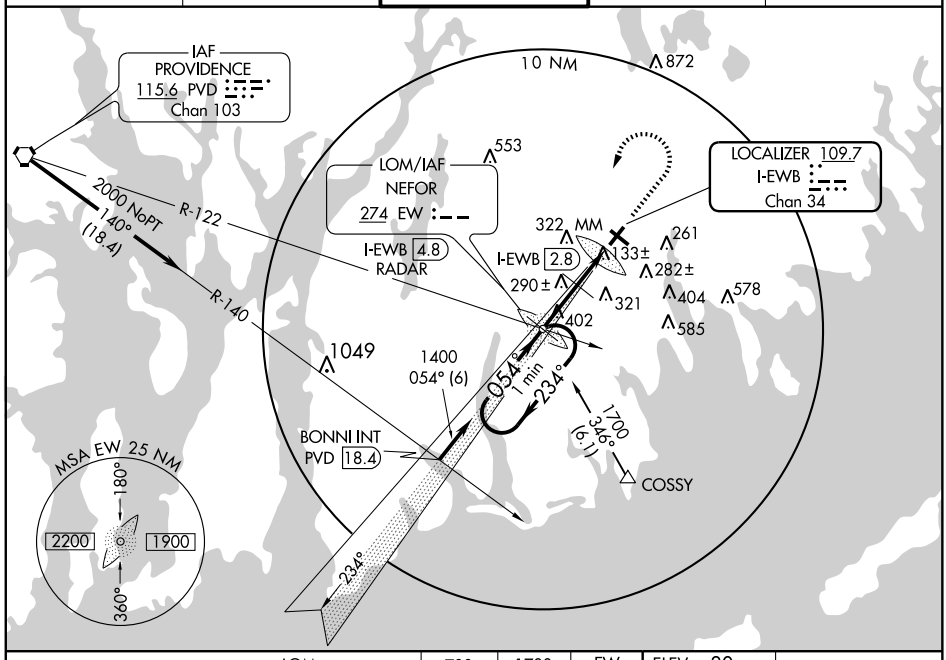
ILS or LOC RWY 5
NEW BEDFORD RGNL (EWB)

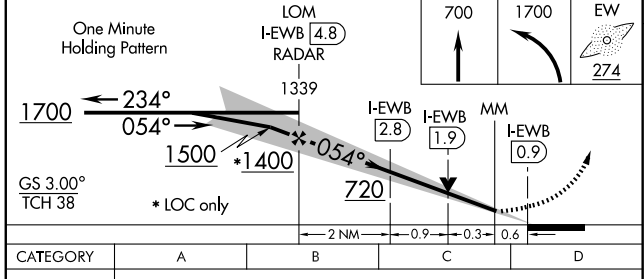
Auto coupled approach NA below 470.
ADF required.

MALSR

MISSED APPROACH: Climb to 700, then climbing left turn to 1700 direct NEFOR LOM and hold.

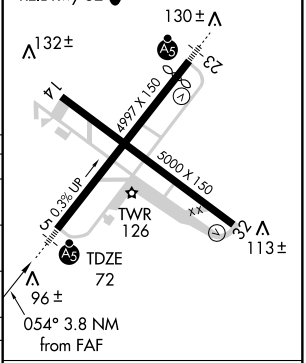
ATIS	PROVIDENCE APP CON*	NEW BEDFORD TOWER*	GND CON	UNICOM
126.85	128.7 269.525	118.1 (CTAF) L 239.0	121.9	122.95





ELEV 80

MIRL Rwy 14-32 L
HIRL Rwy 5-23 L
REIL Rwy 32 L



CATEGORY	A	B	C	D
S-ILS 5	272/24 200 (200-½)			
S-LOC 5	720/24 648 (700-½)		720/60 648 (700-1¼)	720-1½ 648 (700-1½)
CIRCLING	720-1 640 (700-1)		720-1¾ 640 (700-1¾)	720-2 640 (700-2)
DME MINIMUMS				
S-LOC 5	420/24 348 (400-½)			420/40 348 (400-¾)
CIRCLING	620-1 540 (600-1)		640-1½ 560 (600-1½)	640-2 560 (600-2)

FAF to MAP 3.8 NM

Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-EWB	APP CRS	Rwy ldg	4584
109.7	234°	TDZE	78
Chan 34		Apt Elev	80

LOC BC RWY 23
NEW BEDFORD RGNL (EWB)

For inoperative MALSR, increase S-23 visibility ¼ mile all Cats.

MALSR

MISSED APPROACH: Climb to 1700 via I-EWB SW course to NEFOR LOM/Int/I-EWB 4.8 DME/RADAR and hold.

ATIS	PROVIDENCE APP CON★	NEW BEDFORD TOWER★	GND CON	UNICOM
126.85	128.7 269.525	118.1 (CTAF) L 239.0	121.9	122.95

BACK COURSE
RADAR REQUIRED

10 NM

054°

FURBS
I-EWB 9.8

1900
234°
(5.2)

872

385

LOCALIZER 109.7
I-EWB
Chan 34

CUSON OM
I-EWB 4.6
RADAR

553

234°

R-4101

322

261

115.6 PVD
Chan 103

R-122

282 ±

402

321

404

578

585

LOM
NEFOR
274 EW

1049

NEFOR INT
I-EWB 4.8/RADAR

054°

234°

MSA EW 25 NM

180°

2200

1900

360°

ELEV 80

234° 4.7 NM
from FAF

130 ±

132 ±

23

TDZE
78

4997 X 150

5000 X 150

0.3% UP

TWR
126

32

113 ±

96 ±

MIRL Rwy 14-32 L
HIRL Rwy 5-23 L
REIL Rwy 32 L

1700

I-EWB
SW CRS

EW
274

FURBS
I-EWB 9.8

CUSON OM
I-EWB 4.6
RADAR

2000

234°

I-EWB
0.5

1900

3.51°
TCH 50

VGSI and descent angle not coincident.

Disregard GS indications.

0.6 4.1 NM 5.2 NM

FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

CATEGORY	A	B	C	D
S-23	460-¾ 382 (400-¾)			460-1 382 (400-1)
CIRCLING	620-1 540 (600-1)		640-1½ 560 (600-1½)	640-2 560 (600-2)

NE-1, 17 DEC 2009 to 14 JAN 2010

LOM EW	APP CRS	Rwy ldg	4997
274	055°	TDZE	72
		Apt Elev	80

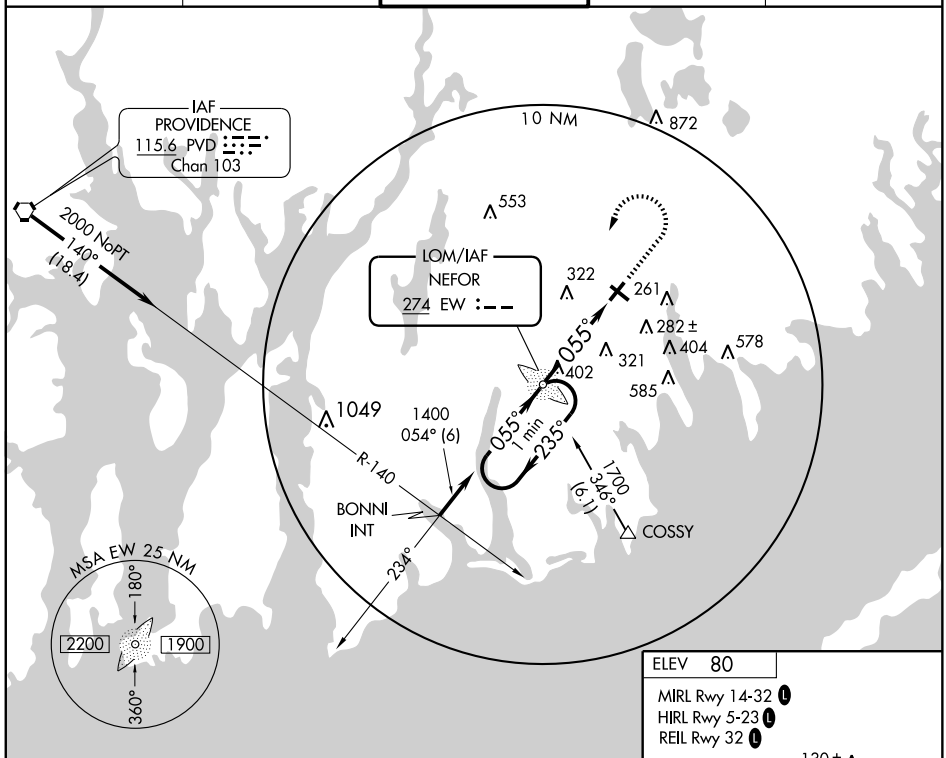
NDB RWY 5

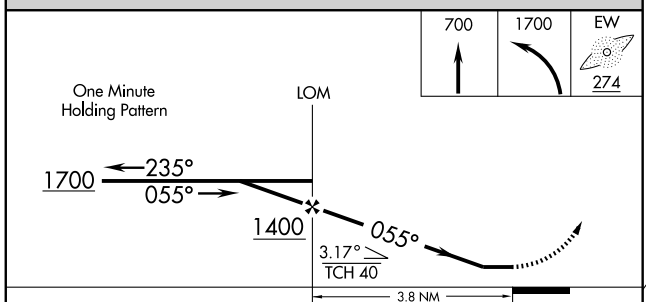
NEW BEDFORD RGNL (EWB)

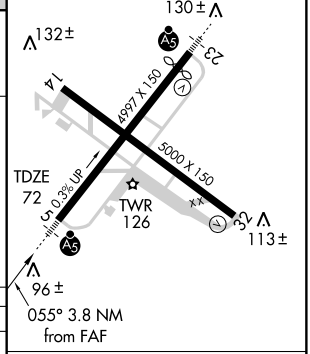
MALSR

MISSED APPROACH: Climb to 700, then climbing left turn to 1700 direct NEFOR LOM and hold.

ATIS	PROVIDENCE APP CON★	NEW BEDFORD TOWER★	GND CON	UNICOM
126.85	128.7 269.525	118.1 (CTAF) L 239.0	121.9	122.95







CATEGORY	A	B	C	D
S-5	640/40 568 (600-¾)		640/50 568 (600-1)	640-1½ 568 (600-1½)
CIRCLING	640-1 560 (600-1)		640-1½ 560 (600-1½)	640-2 560 (600-2)

FAF to MAP 3.8 NM					
Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	4997
054°	TDZE	72
	Apt Elev	80

RNAV (GPS) RWY 5
NEW BEDFORD RGNL (EWB)

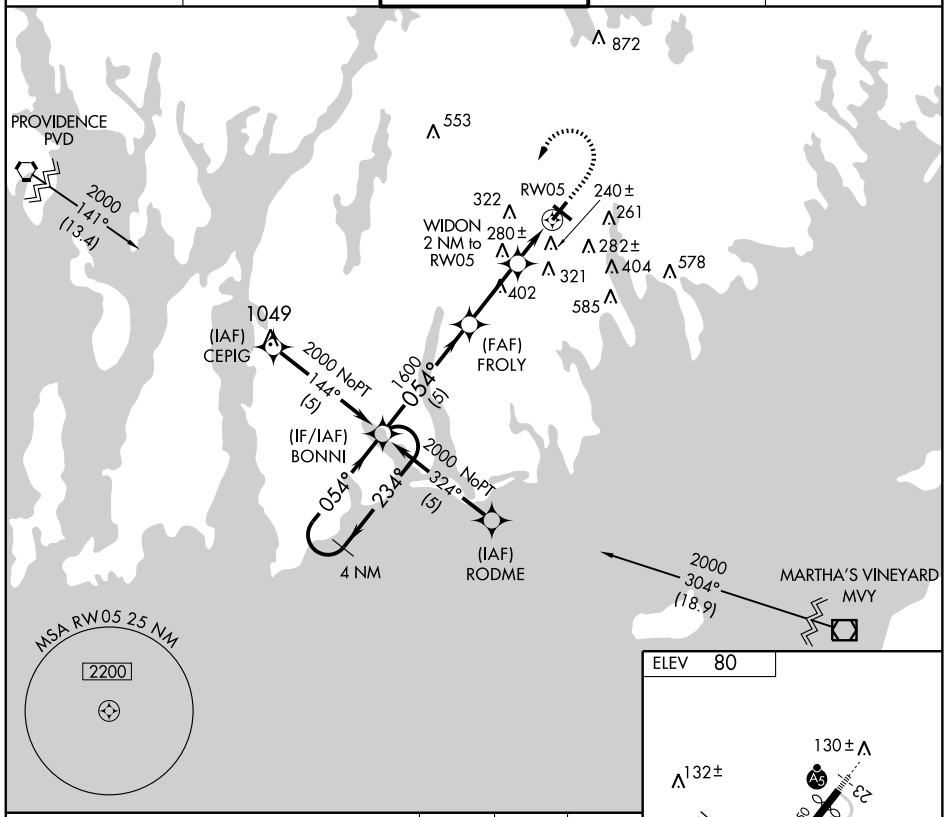
NA

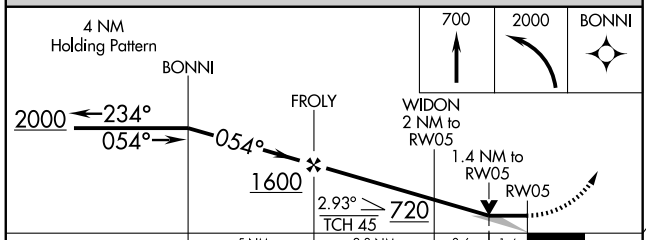
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

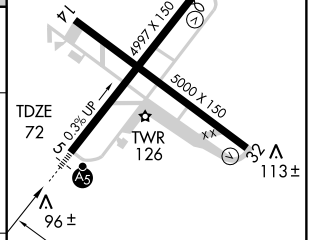
MALSR

MISSED APPROACH: Climb to 700 then climbing left turn to 2000 direct BONNI WP and hold.

ATIS	PROVIDENCE APP CON★		NEW BEDFORD TOWER★	GND CON	UNICOM
126.85	128.7	269.525	118.1 (CTAF) L 239.0	121.9	122.95







MIRL Rwy 14-32 L
HIRL Rwy 5-23 L
REIL Rwy 32 L

CATEGORY	A	B	C	D
LNAV MDA	540/24 468 (500-½)		540/40 468 (500-¾)	540/50 468 (500-1)
CIRCLING	620-1 540 (600-1)		640-1½ 560 (600-1½)	640-2 560 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	4584
234°	TDZE	78
	Apt Elev	80

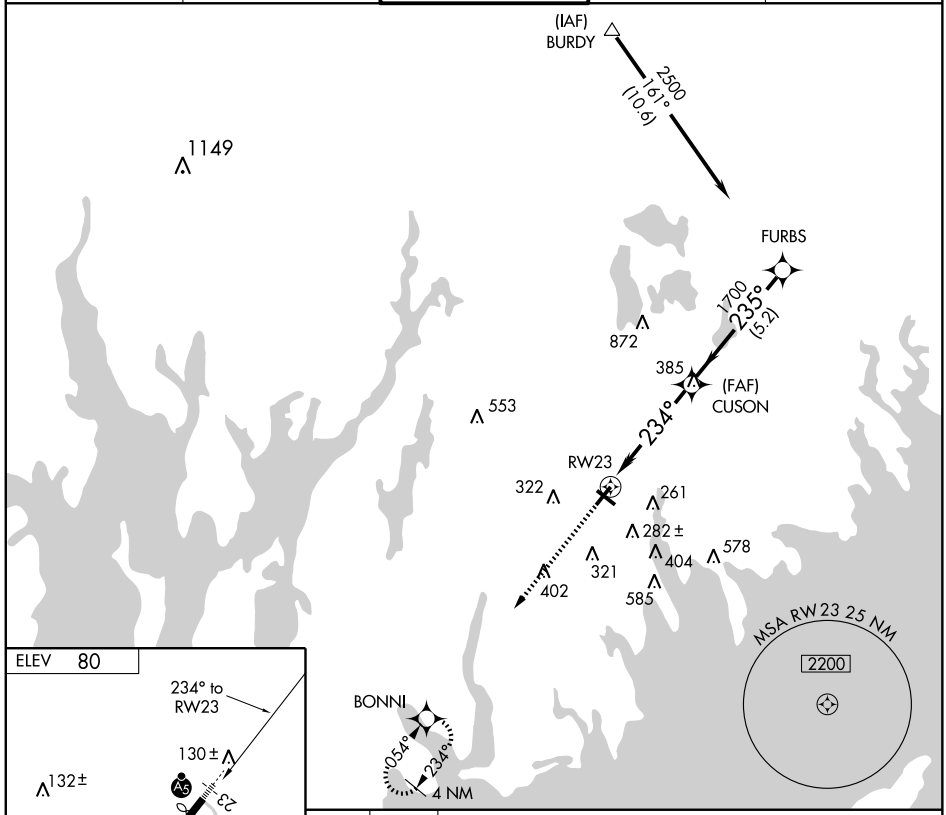
RNAV (GPS) RWY 23
NEW BEDFORD RGNL (EWB)

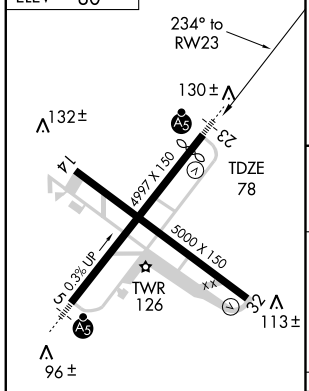
For inoperative MALSR, increase LNAV Cat A/B/C visibility to 1, Cat D to 1¼.
NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MALSR

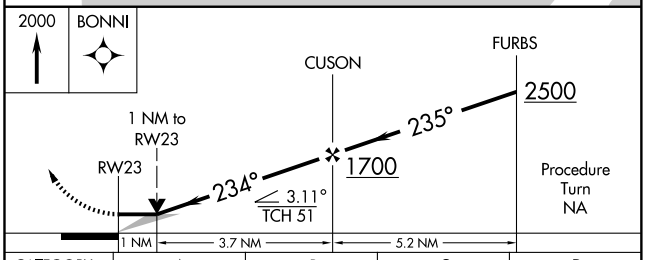
MISSED APPROACH: Climb to 2000 direct to BONNI WP and hold.

ATIS	PROVIDENCE APP CON★	NEW BEDFORD TOWER★	GND CON	UNICOM
126.85	128.7 269.525	118.1 (CTAF) L 239.0	121.9	122.95





MIRL Rwy 14-32 L
HIRL Rwy 5-23 L
REIL Rwy 32 L



CATEGORY	A	B	C	D
LNAV MDA	460-¾ 382 (400-¾)			460-1 382 (400-1)
CIRCLING	620-1 540 (600-1)		640-1½ 560 (600-1½)	640-2 560 (600-2)

NE-1. 17 DEC 2009 to 14 JAN 2010

TEDDY THREE ARRIVAL

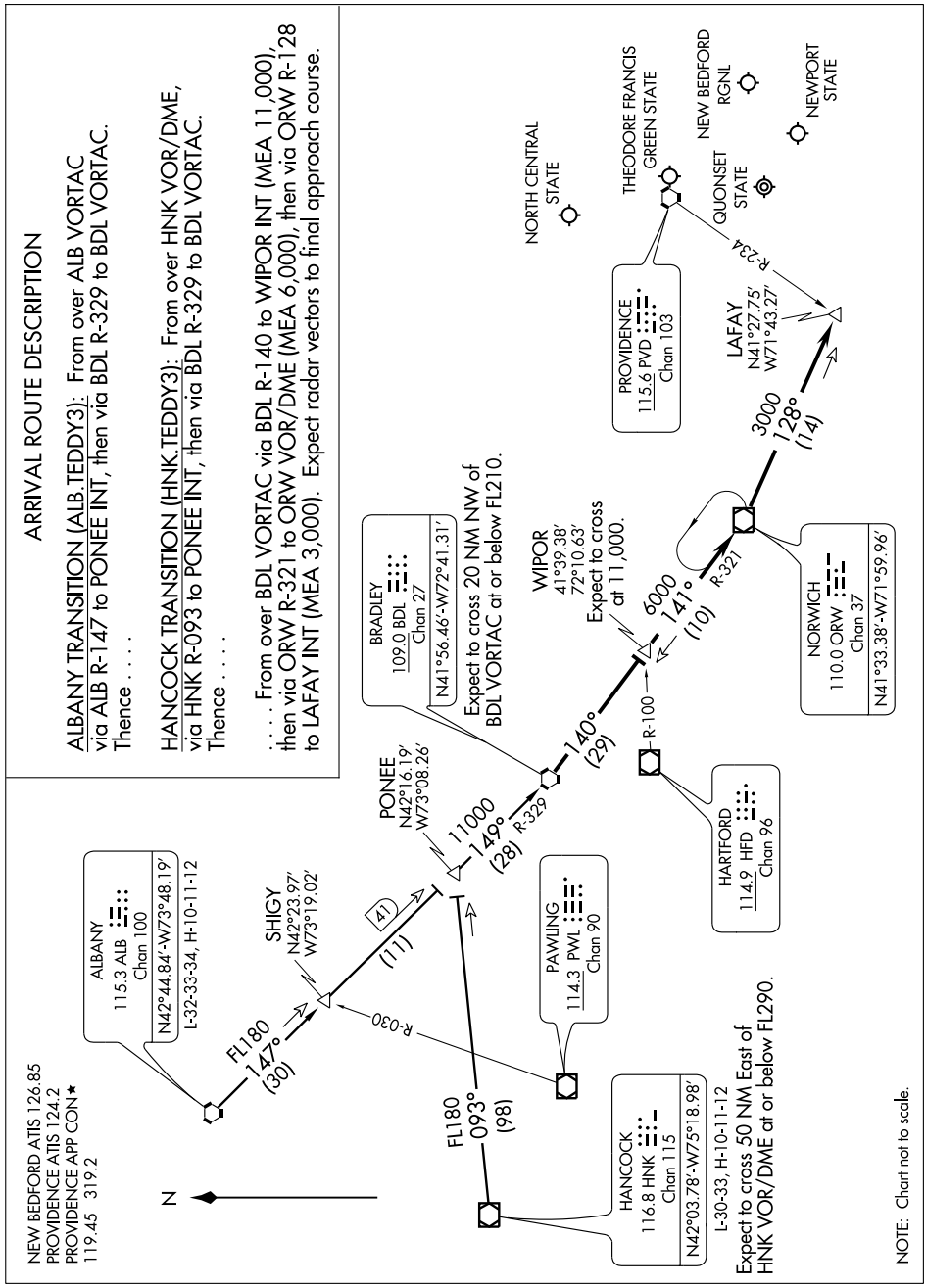
PROVIDENCE, RHODE ISLAND

ARRIVAL ROUTE DESCRIPTION

ALBANY TRANSITION (ALB.TEDDY3): From over ALB VORTAC via ALB R-147 to PONEE INT, then via BDL R-329 to BDL VORTAC. Thence . . . .

HANCOCK TRANSITION (HNK.TEDDY3): From over HNK VOR/DME, via HNK R-093 to PONEE INT, then via BDL R-329 to BDL VORTAC. Thence . . . .

. . . . From over BDL VORTAC via BDL R-140 to WIPOR INT (MEA 11,000), then via ORW R-321 to ORW VOR/DME (MEA 6,000), then via ORW R-128 to LAFAY INT (MEA 3,000). Expect radar vectors to final approach course.



APP CRS	Rwy ldg	3365
143°	TDZE	121
	Apt Elev	121

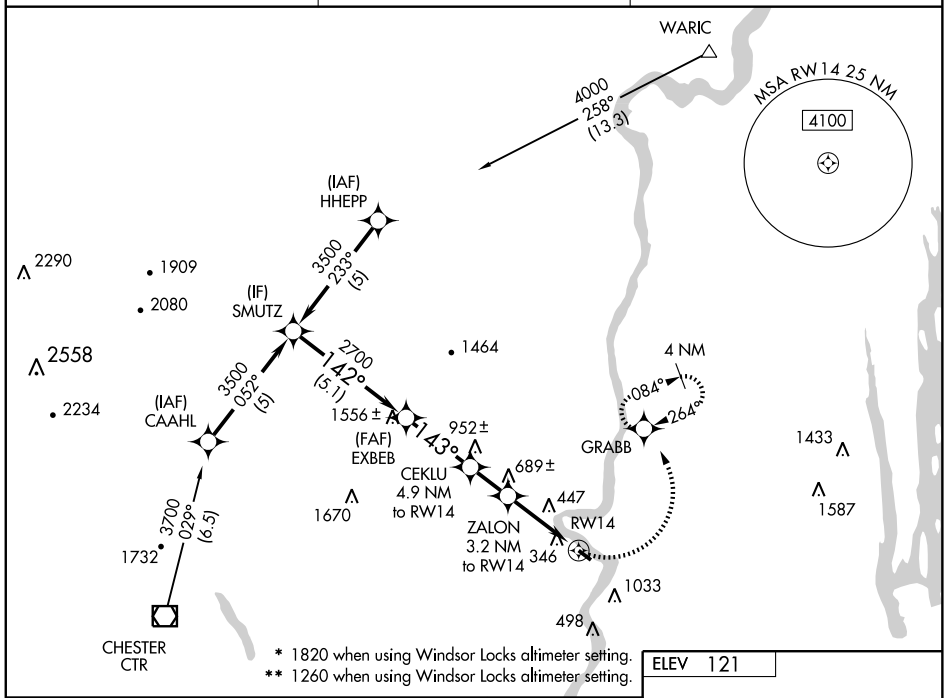
RNAV (GPS) RWY 14
NORTHAMPTON (7B2)

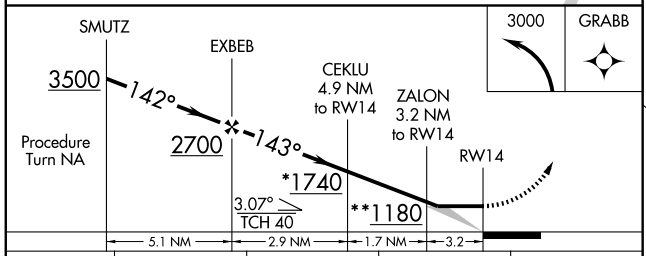
NA

DME/DME RNP-0.3 NA.
Obtain local altimeter setting on CTAF; when not received, use Windsor Locks altimeter setting.

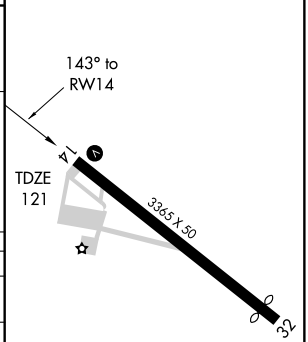
MISSED APPROACH: Climbing left turn to 3000 direct GRABB and hold, continue climb-in-hold to 3000.

BRADLEY APP CON	CLNC DEL	UNICOM
125.35 281.5	133.6	122.7 (CTAF) L





ELEV 121



CATEGORY	A	B	C	D
LNAV MDA	940-1 819 (900-1)	940-1¼ 819 (900-1¼)	NA	
CIRCLING	940-1 819 (900-1)	940-1¼ 819 (900-1¼)	NA	
WINDSOR LOCKS ALTIMETER SETTING MINIMUMS				
LNAV MDA	1020-1¼ 899 (900-1¼)		NA	
CIRCLING	1020-1¼ 899 (900-1¼)		NA	

HIRL Rwy 14-32 L

VORTAC BAF	APP CRS	Rwy ldg	N/A
113.0	039°	TDZE	N/A
Chan 77		Apt Elev	121

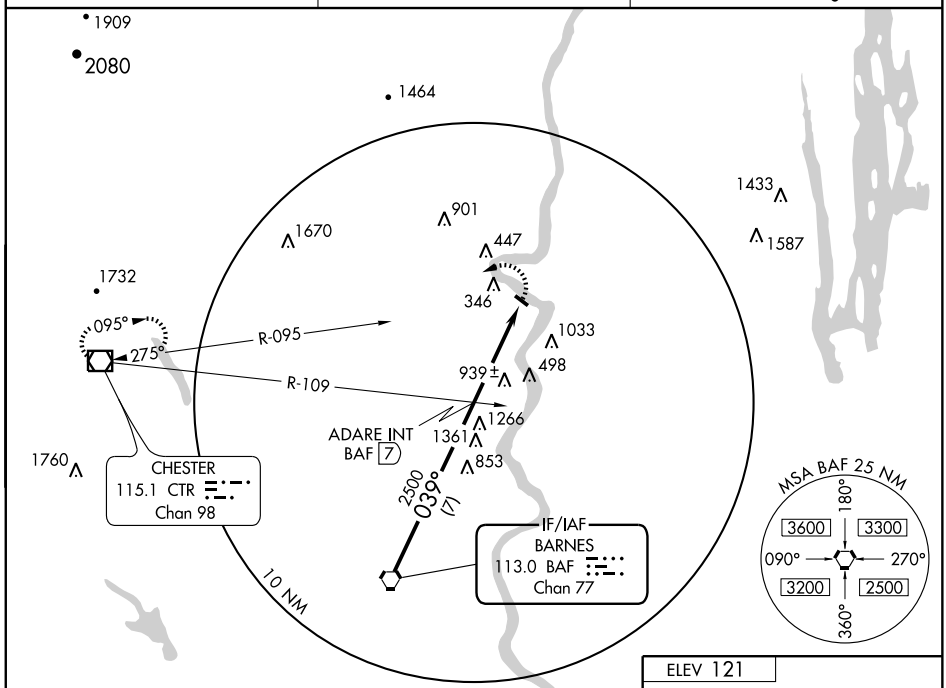
VOR-A
NORTHAMPTON (7B2)

Obtain local altimeter on CTAF; when not received, use Windsor Locks altimeter setting.

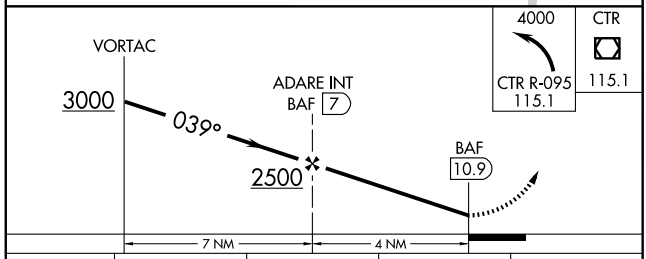
NA

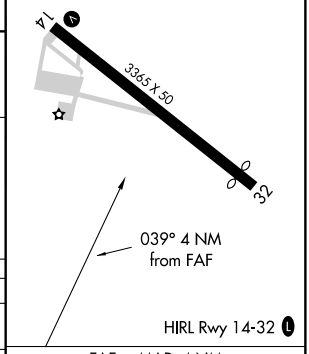
MISSED APPROACH: Climbing left turn to 4000 via CTR VOR/DME R-095 to CTR VOR/DME and hold.

BRADLEY APP CON	CLNC DEL	UNICOM
125.35 281.5	133.6	122.7 (CTAF)



RADAR REQUIRED





CATEGORY	A	B	C	D
CIRCLING	1540-1¼ 1419 (1500-1¼)	1540-1½ 1419 (1500-1½)	NA	
WINDSOR LOCKS ALTIMETER SETTING MINIMUMS				
CIRCLING	1620-1¼ 1499 (1500-1¼)	1620-1½ 1499 (1500-1½)	NA	

FAF to MAP 4 NM

Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

NE-1. 17 DEC 2009 to 14 JAN 2010

VORTAC BAF	APP CRS	Rwy Idg	N/A
113.0	219°	TDZE	N/A
Chan 77		Apt Elev	122

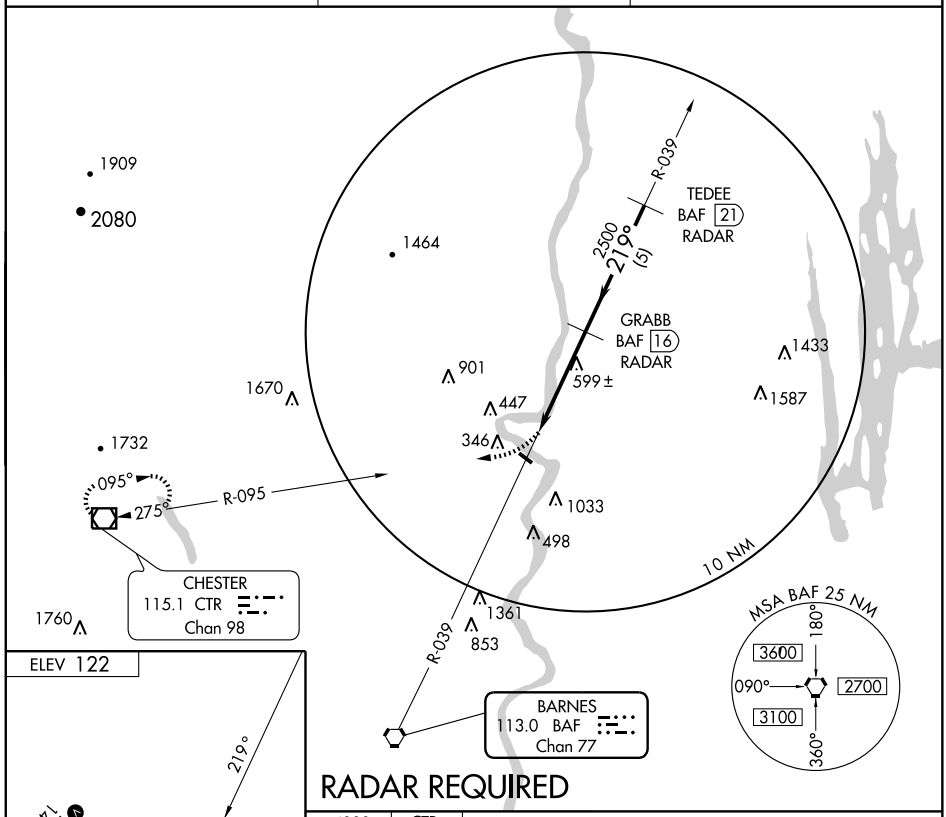
VOR/DME-B
NORTHAMPTON (7B2)

Obtain local altimeter on CTAF; when not received, use Windsor Locks altimeter setting.

NA

MISSED APPROACH: Climbing right turn to 4000 via CTR R-095 to CTR VOR/DME and hold.

BRADLEY APP CON	CLNC DEL	UNICOM
125.35 281.5	133.6	122.7 (CTAF) L



CATEGORY	A	B	C	D
CIRCLING	980-1 858 (900-1)	980-1¼ 858 (900-1¼)	NA	
WINDSOR LOCKS ALTIMETER SETTING MINIMUMS				
CIRCLING	1040-1¼ 918 (1000-1¼)		NA	

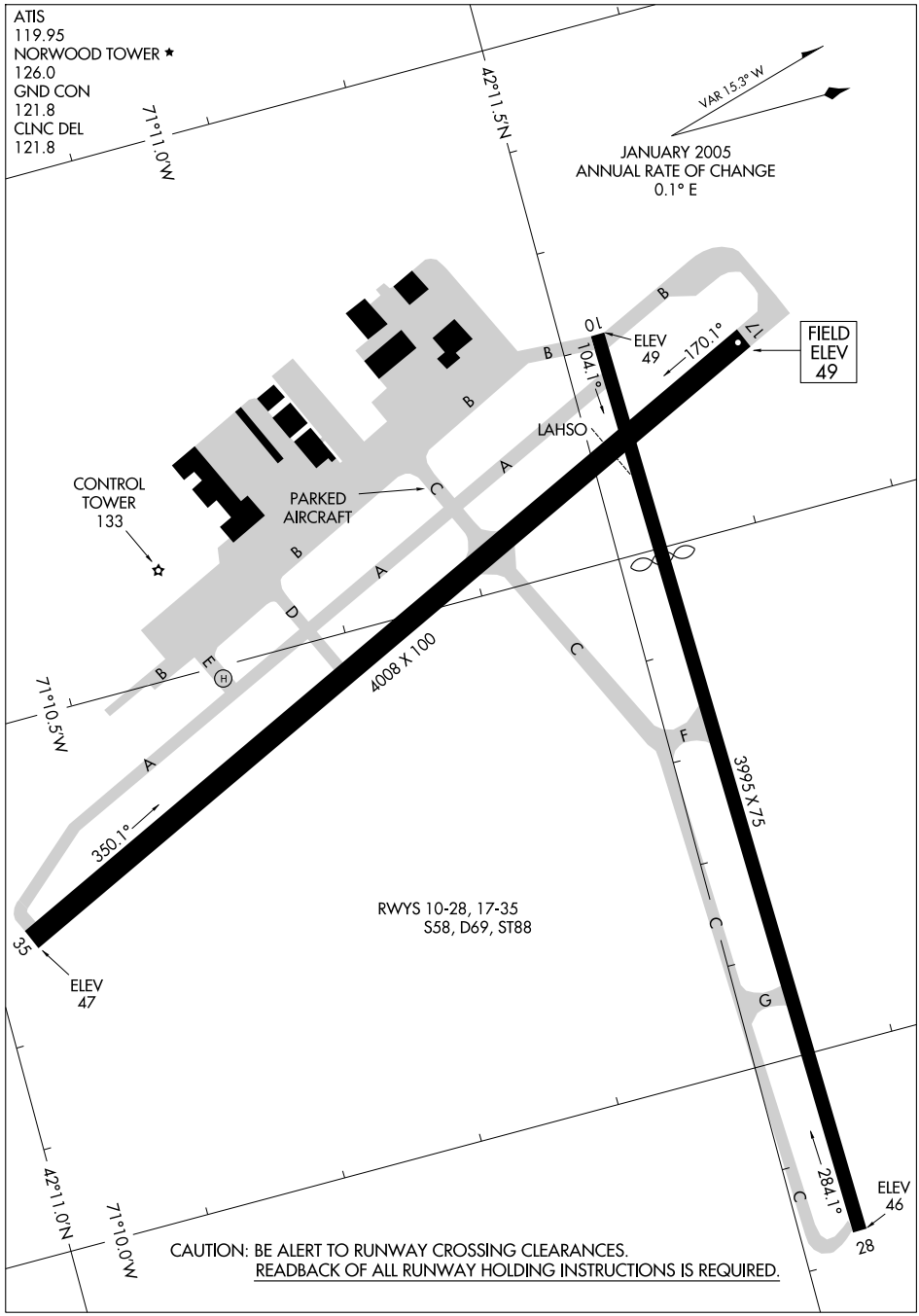
HIRL Rwy 14-32 L

NE-1. 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

AL-725 (FAA)

NORWOOD MEMORIAL (OWD)
NORWOOD, MASSACHUSETTS



NE-1, 17 DEC 2009 to 14 JAN 2010

LOC/DME I-OWD	APP CRS	Rwy ldg	4008
108.3	350°	TDZE	49
Chan 20		Apt Elev	49

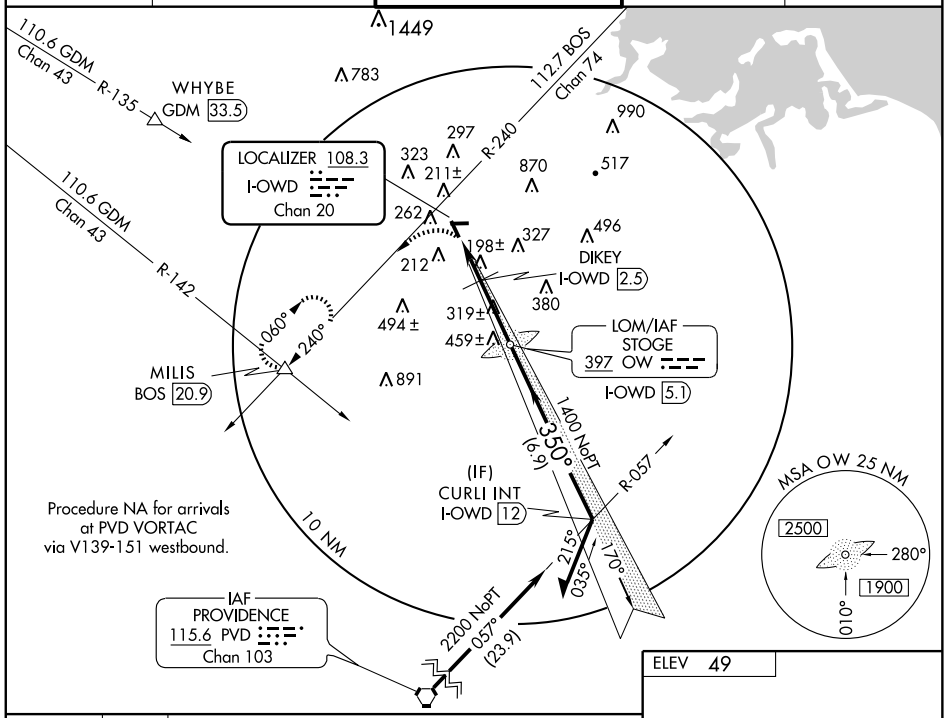
LOC RWY 35
NORWOOD MEMORIAL (OWD)

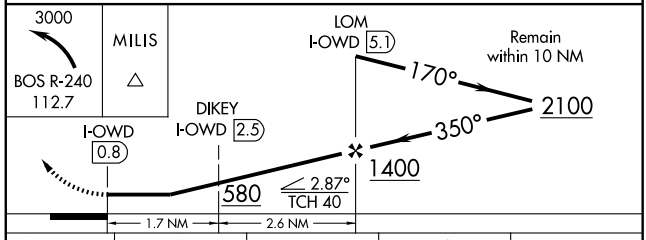
Circling to Rwy 10/28 NA at night.
Inoperative table does not apply to Cat C.

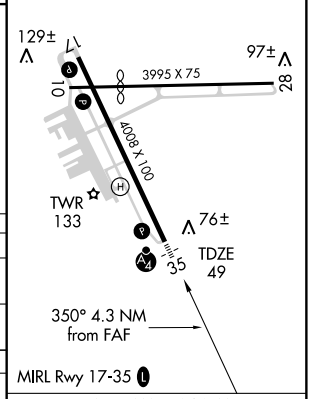
MALSF

MISSED APPROACH: Climbing left turn to 3000 via BOS VOR/DME R-240 to MILIS INT/BOS 20.9 DME and hold, continue climb-in-hold to 3000.

ATIS	BOSTON APP CON	NORWOOD TOWER ★	GND CON	CLNC DEL
119.95	124.1 263.1	126.0 (CTAF) L	121.8	121.8







CATEGORY	A	B	C	D
S-35	580-¾ 531 (600-¾)		580-1½ 531 (600-1½)	580-1¾ 531 (600-1¾)
CIRCLING	600-1 551 (600-1)		640-1½ 591 (600-1½)	680-2 631 (700-2)
DIKEY FIX MINIMUMS				
S-35	500-¾ 451 (500-¾)		500-1¼ 451 (500-1¼)	500-1½ 451 (500-1½)
CIRCLING	600-1 551 (600-1)		640-1½ 591 (600-1½)	680-2 631 (700-2)

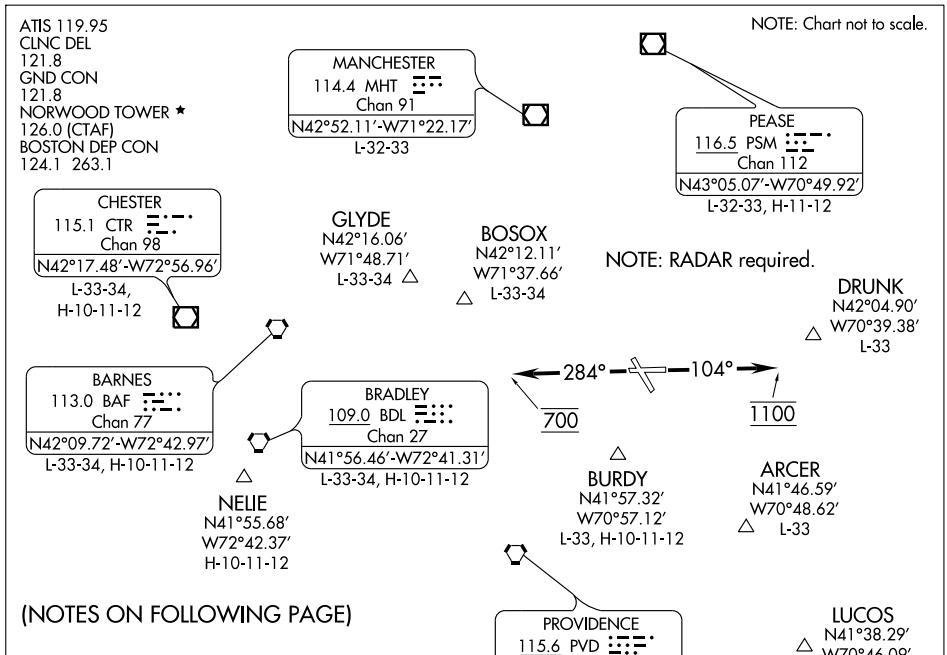
FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

NE-1. 17 DEC 2009 to 14 JAN 2010

NORWOOD EIGHT DEPARTURE

SL-725 (FAA)



TAKE-OFF MINIMUMS:

Rwy 10, 300-2 ¼ or STANDARD with minimum climb of 340′ per NM to 400.

Rwy 17, 300-2 ¼ or STANDARD with minimum climb of 220′ per NM to 400, or alternatively, with standard takeoff minimums and a normal 200′/NM climb gradient, takeoff must occur no later then 1600′ prior to departure end of runway.

Rwy 28, 400-2 or STANDARD with minimum climb of 385′ per NM to 400.

Rwy 35, 300-2 or STANDARD with minimum climb of 230′ per NM to 500, or alternatively, with standard takeoff minimums and a normal 200′/NM climb gradient, takeoff must occur no later thatn 2100′ prior to departure end of runway.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 10: Climb heading 104° to 1100, then as assigned by ATC, Thence . . .

TAKE-OFF RUNWAY 17: Climb on assigned heading for radar vectors to assigned NAVAID/FIX, Thence . . .

TAKE-OFF RUNWAY 28: Climb heading 284° to 700, then assigned by ATC, Thence . . .

TAKE-OFF RUNWAY 35: Climb heading 280° to 330° as assigned by ATC, Thence . . .

. . . All aircraft expect radar vectors to appropriate depicted NAVAID/FIX. Maintain 2000. Expect further clearance to filed altitude/flight level 10 minutes after departure.

NE-1, 17 DEC 2009 to 14 JAN 2010

NORWOOD EIGHT DEPARTURE

TAKE-OFF OBSTACLES:

Rwy 10: Trees and bushes beginning abeam DER, 177′ right of centerline, up to 100′ AGL/178′ MSL. Tree 4488′ from DER, 911′ right of centerline, up 100′ AGL/ 237′ MSL. Tree 5428′ from DER, 1946′ right of centerline, 100′ AGL/267′ MSL. Trees beginning abeam DER, 34′ left of centerline, up to 100′ AGL/149′ MSL. Tree 1.9 NM from DER, 2124′ left of centerline, 100′ AGL/346′ MSL.

Rwy 17: Trees beginning 42′ from DER, 248′ left of centerline, up to 78′ AGL/126′ MSL. Tree 1.2 NM from DER, 2183′ left of centerline, 100′ AGL/257′ MSL. Trees beginning 612′ from DER, 155′ right of centerline, up to 100′ AGL/198′ MSL. Tree 1.8 NM from DER, 3301′ right of centerline, 100′ AGL/346′ MSL.

Rwy 28: Trees beginning 594′ from DER, 41′ left of centerline, up to 70′ AGL/188′ MSL. Building 173′ from DER, 514′ left of centerline, 30′ AGL/79′ MSL. Stack spire, rod on stack, light, antenna, and power poles beginning 202′ from DER, 211′ left of centerline, up to 99′ AGL/335′ MSL. Building 173′ from DER, 514′ left of centerline, 30′ AGL/79′ MSL. Vehicle on highway 1499′ from DER, 877′ left of centerline, 17′ AGL/105′ MSL. Spire, pole, antenna on tank, and antenna on spire beginning 1225′ from DER, 301′ right of centerline, up to 70′ AGL/335′ MSL. Vehicle on highway 1316′ from DER, 459′ right of centerline, 17′ AGL/85′ MSL. Building 1016′ from DER 59′ right of centerline, 30′ AGL/89′ MSL. Tower 4466′ from DER, 238′ right of centerline, 157′ AGL/262′ MSL. Tree 1.7 NM from DER, 673′ right of centerline,100′ AGL/365′ MSL.
Trees 549′ from DER, 49′ right of centerline, up to 70′ AGL/188′ MSL.

Rwy 35: Trees beginning 647′ from DER, 36′ left of centerline, up to 74′ AGL/133′ MSL. Tree 1.4 NM from DER, 2382′ left of centerline, up to 100′ AGL/306′ MSL. Tree 1.7 NM from DER, 2657′ left of centerline, up to 100′ AGL/316′ MSL. Buildings 1994′ from DER, 1031′ left of centerline, up to 70′ AGL/129′ MSL. Trees beginning 694′ from DER, 60′ right of centerline, up to 73′ AGL/125′ MSL. Poles beginning 5686′ from DER, 769′ right of centerline, up to 148′ AGL/216′ MSL.

WAAS CH 86400 W35A	APP CRS 350°	Rwy ldg 4008 TDZE 49 Apt Elev 49

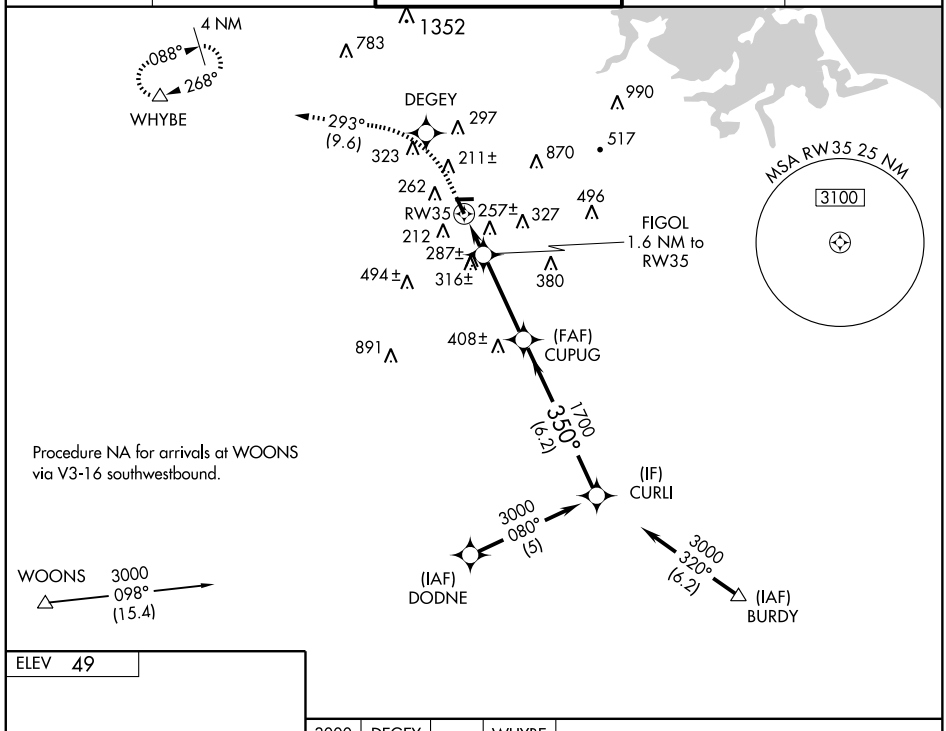
RNAV (GPS) RWY 35
NORWOOD MEMORIAL (OWD)

Circling to Rwy 28 NA at night. Inoperative table does not apply to LPV, LNAV/VNAV all Cats, and LNAV Cat C. Baro-VNAV NA below -15°C (5°F). DME/DME RNP-0.3 NA.

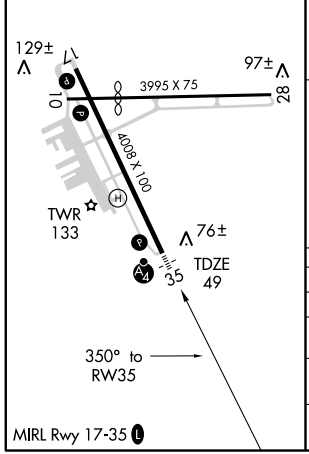
MALSF

MISSED APPROACH: Climb to 3000 direct DEGEY WP and via 293° track to WHYBE WP and hold, continue climb-in-hold to 3000.

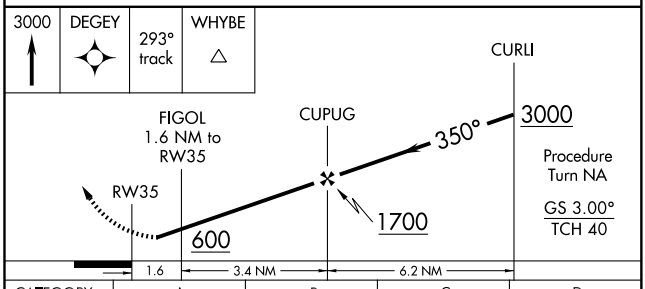
ATIS	BOSTON APP CON	NORWOOD TOWER ★	GND CON	CLNC DEL
119.95	124.1 263.1	126.0 (CTAF) L	121.8	121.8



Procedure NA for arrivals at WOONS via V3-16 southwestbound.



MIRL Rwy 17-35 L



CATEGORY	A	B	C	D
LPV DA	344-1 295 (300-1)			
LNAV/VNAV DA	594-2 545 (600-2)			
LNAV MDA	540-¾ 491 (500-¾)		540-1¼ 491 (500-1¼)	540-1½ 491 (500-1½)
CIRCLING	600-2 551 (600-2)		640-2 591 (600-2)	680-2 631 (700-2)

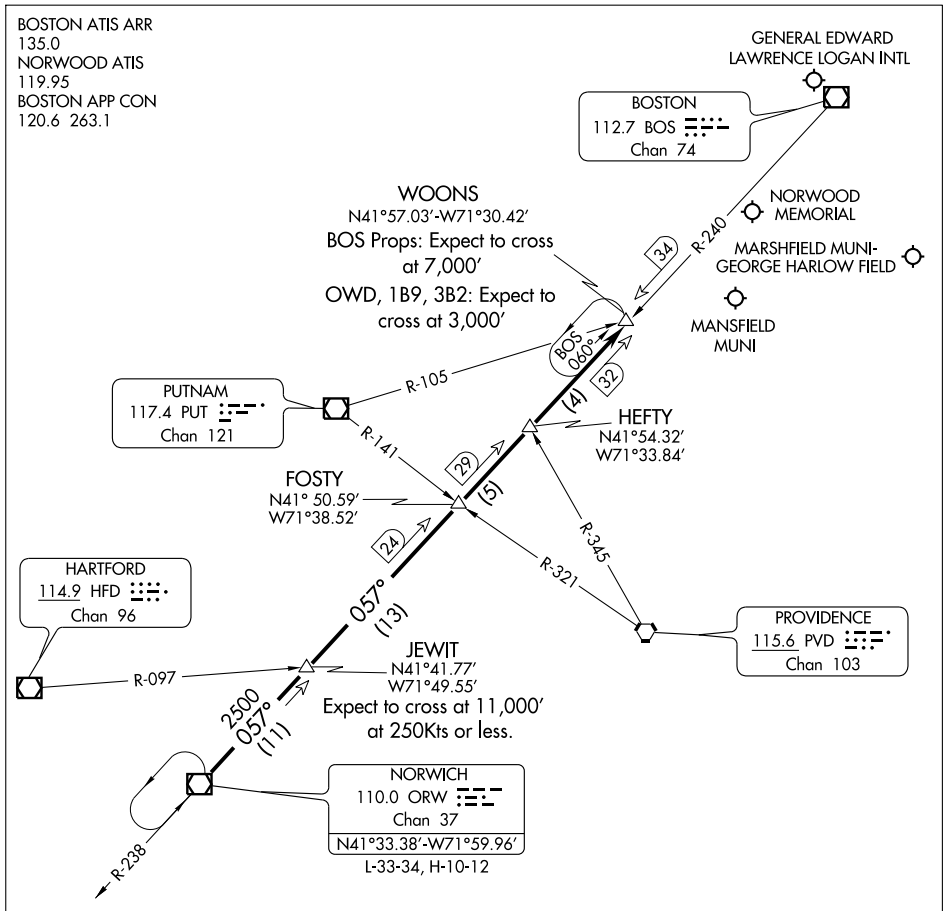
NE-1. 17 DEC 2009 to 14 JAN 2010

(ORW.WOONS1) 09239

WOONS ONE ARRIVAL

ST-58 (FAA)

BOSTON, MASSACHUSETTS



NOTE: Chart not to scale

NOTE: Applicable to props landing BOS and all aircraft landing OWD, 1B9 and GHG. Applicable 11,000 feet and above.

From over ORW VOR/DME via ORW R-057 to WOONS INT. Expect radar vectors to final.

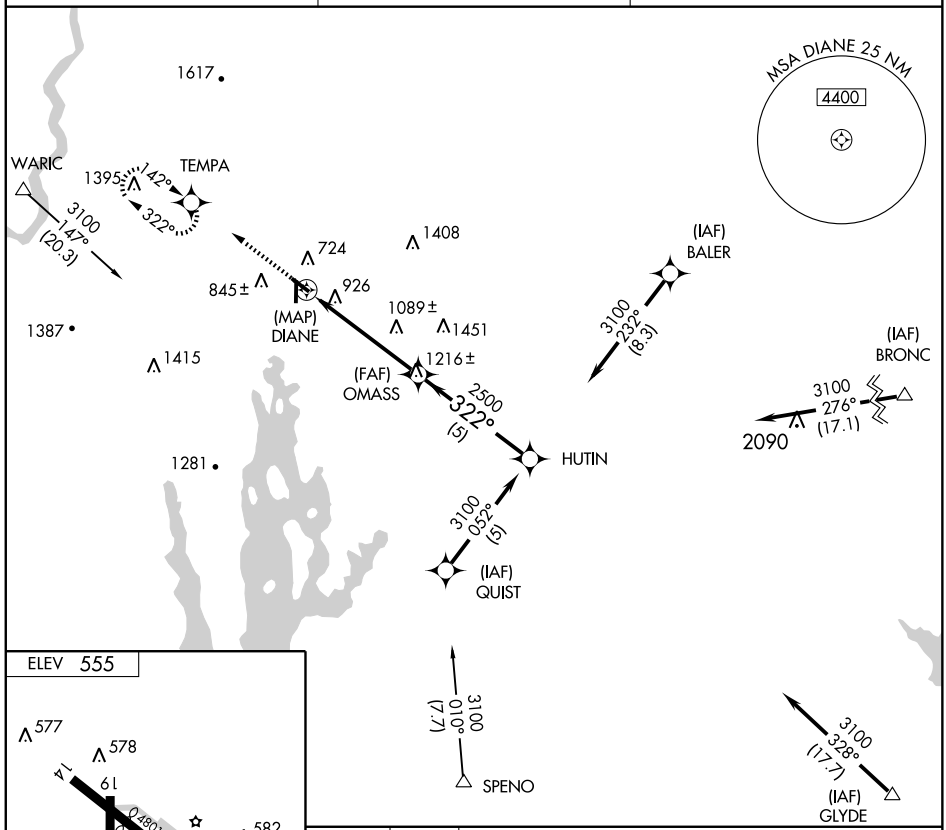
APP CRS	Rwy ldg	3142
322°	TDZE	550
	Apt Elev	555

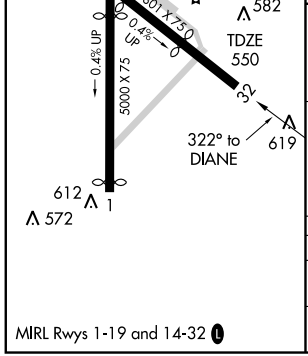
GPS RWY 32
ORANGE MUNI (ORE)

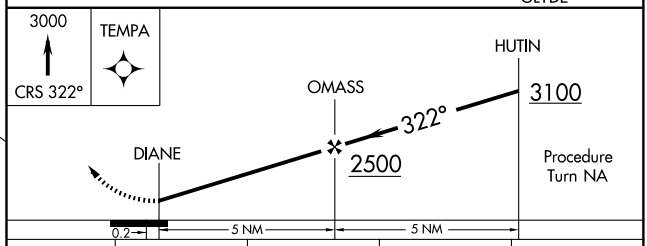
NA

MISSED APPROACH: Climb to 3000 via 322° course to TEMPA WP and hold.

ASOS	BOSTON CENTER	UNICOM
135.675	123.75 338.2	122.8 (CTAF)







CATEGORY	A	B	C	D
S-32	1480-1¼ 930 (1000-1¼)		1480-2¾ 930 (1000-2¾)	NA
CIRCLING	1480-1¼ 925 (1000-1¼)		1480-2¾ 925 (1000-2¾)	NA

MIRL Rwys 1-19 and 14-32

NE-1. 17 DEC 2009 to 14 JAN 2010

NDB ORE	APP CRS	Rwy ldg	4900
205	022°	TDZE	552
		Apt Elev	555

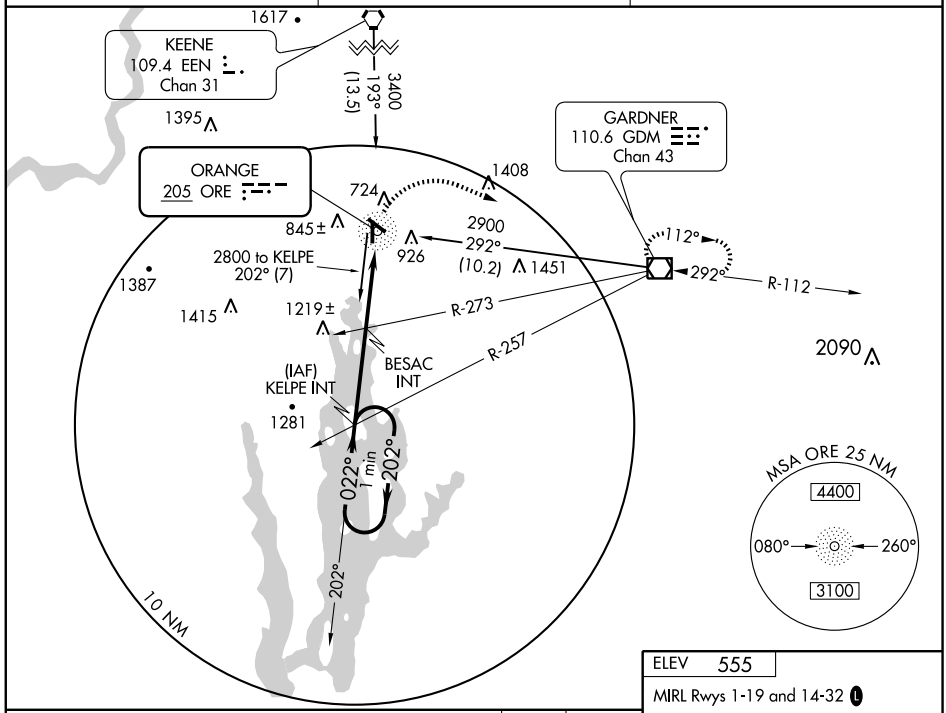
NDB RWY 1
ORANGE MUNI(ORE)

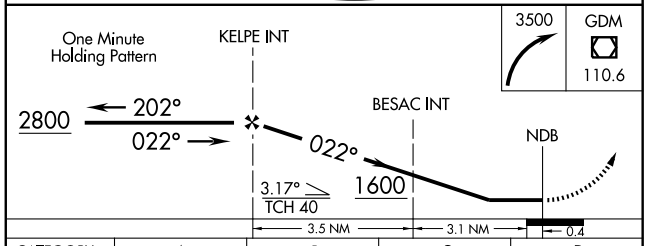
Cat D circling NA to Rwy 14-32.

NA

MISSED APPROACH: Climbing right turn to 3500 direct GDM VOR/DME and hold.

ASOS	BOSTON CENTER	UNICOM
135.675	123.75 338.2	122.8 (CTAF) L

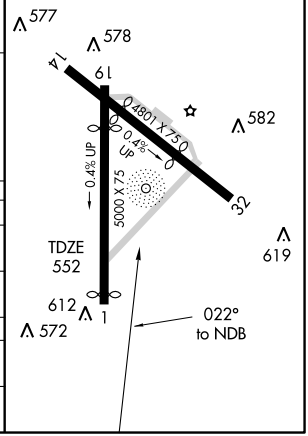




CATEGORY	A	B	C	D
S-1	1600-1¼ 1048 (1100-1¼)	1600-1½ 1048 (1100-1½)	1600-3	1048 (1100-3)
CIRCLING	1600-1¼ 1045 (1100-1¼)	1600-1½ 1045 (1100-1½)	1600-3	1045 (1100-3)
BESAC FIX MINIMUMS				
S-1	1520-1¼ 968 (1000-1¼)	1520-1½ 968 (1000-1½)	1520-3	968 (1000-3)
CIRCLING	1520-1¼ 965 (1000-1¼)	1520-1½ 965 (1000-1½)	1520-3	965 (1000-3)

ELEV 555

MIRL Rwys 1-19 and 14-32 L



NE-1. 17 DEC 2009 to 14 JAN 2010

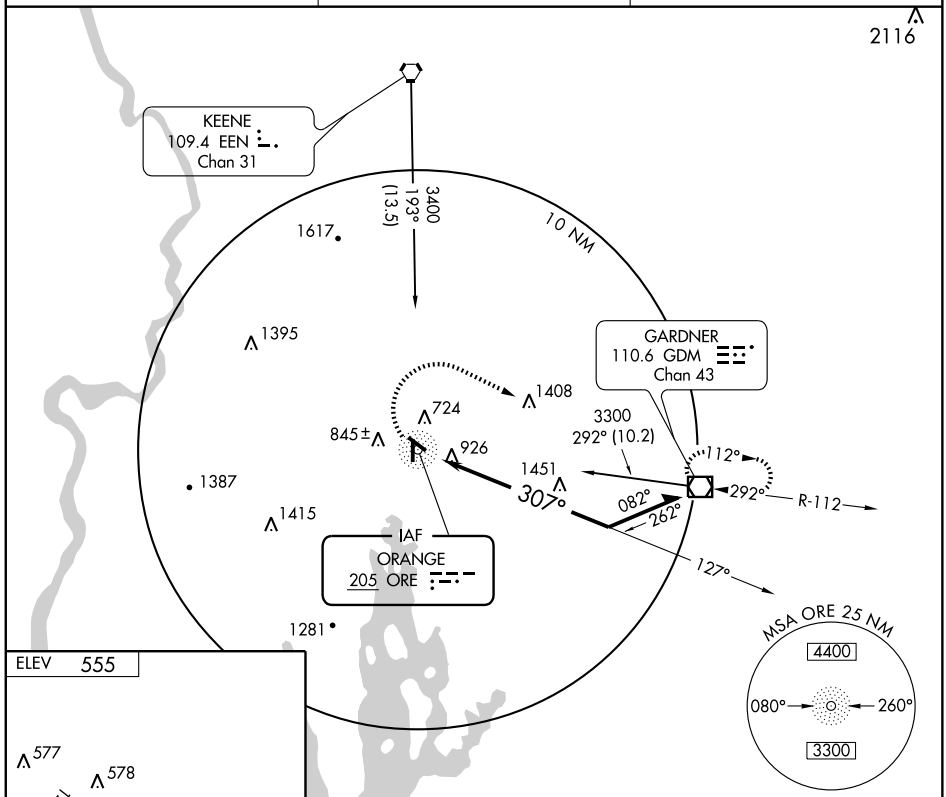
NDB ORE	APP CRS	Rwy ldg	3142
205	307°	TDZE	542
		Apt Elev	555

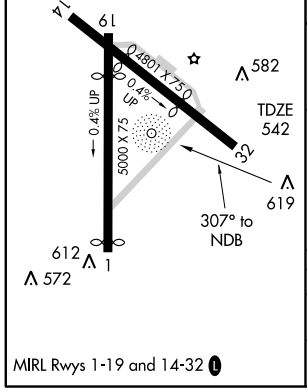
NDB RWY 32
ORANGE MUNI(ORE)

NA

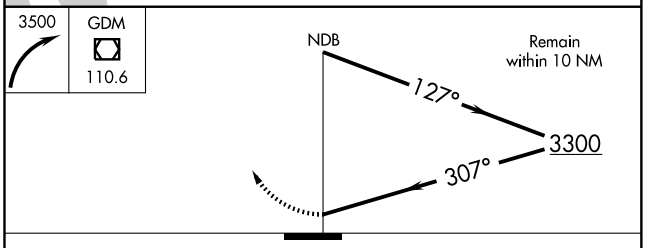
MISSED APPROACH: Climbing right turn to 3500 direct GDM VOR/DME and hold.

ASOS	BOSTON CENTER	UNICOM
135.675	123.75 338.2	122.8 (CTAF)





MIRL Rwys 1-19 and 14-32



CATEGORY	A	B	C	D
S-32	1860-1¼ 1318 (1400-1¼)	1860-1½ 1318 (1400-1½)	1860-3 1318 (1400-3)	NA
CIRCLING	1860-1¼ 1305 (1400-1¼)	1860-1½ 1305 (1400-1½)	1860-3 1305 (1400-3)	NA

NE-1. 17 DEC 2009 to 14 JAN 2010

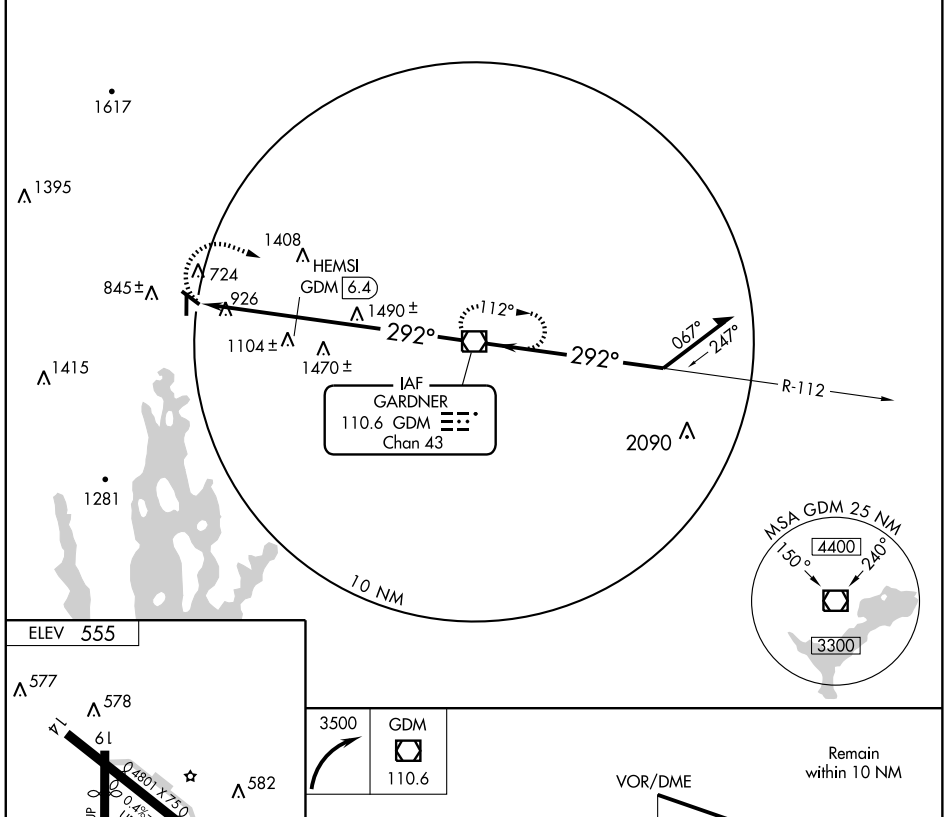
VOR/DME GDM	APP CRS	Rwy ldg	N/A
110.6	292°	TDZE	N/A
Chan 43		Apt Elev	555

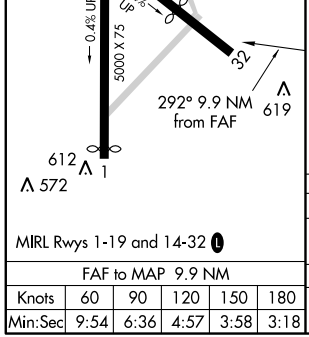
VOR-A
ORANGE MUNI(ORE)

Circling to Rwy 14-32 NA for Cat D.

MISSED APPROACH: Climbing right turn to 3500 direct GDM VOR/DME and hold.

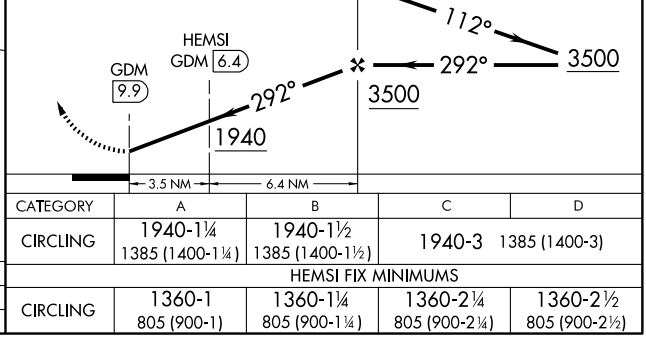
ASOS	BOSTON CENTER	UNICOM
135.675	123.75 338.2	122.8 (CTAF)





MIRL Rwys 1-19 and 14-32

FAF to MAP 9.9 NM					
Knots	60	90	120	150	180
Min:Sec	9:54	6:36	4:57	3:58	3:18



CATEGORY	A	B	C	D
CIRCLING	1940-1¼ 1385 (1400-1¼)	1940-1½ 1385 (1400-1½)	1940-3 1385 (1400-3)	
HEMSI FIX MINIMUMS				
CIRCLING	1360-1 805 (900-1)	1360-1¼ 805 (900-1¼)	1360-2¼ 805 (900-2¼)	1360-2½ 805 (900-2½)

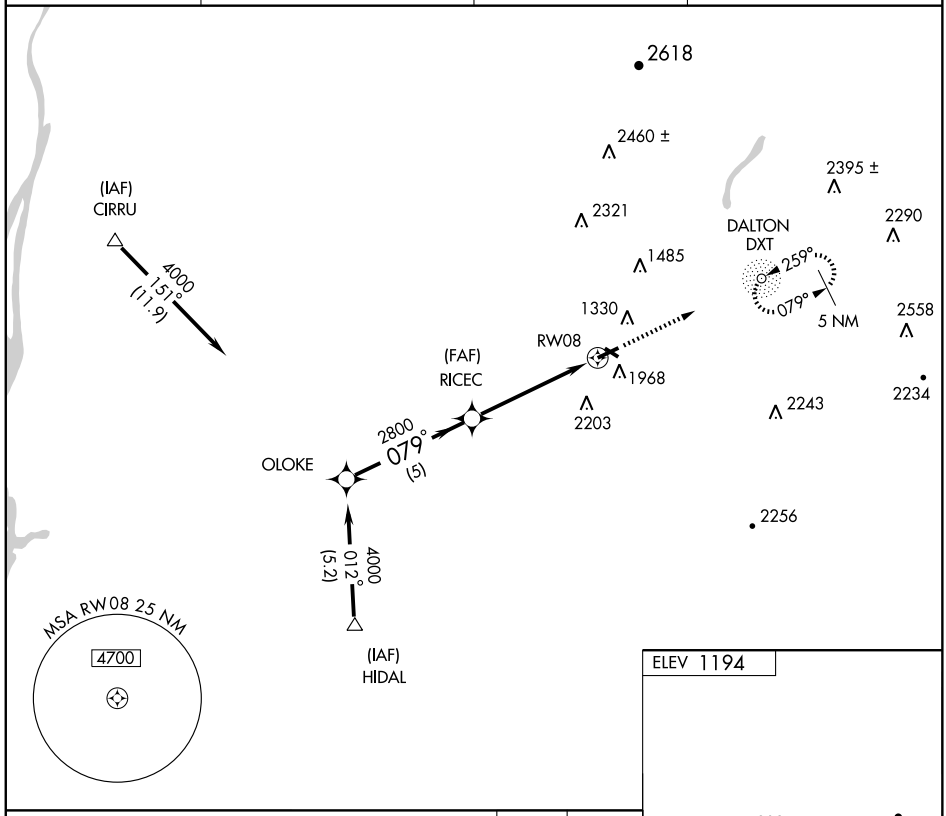
APP CRS	Rwy ldg	5001
079°	TDZE	1194
	Apt Elev	1194

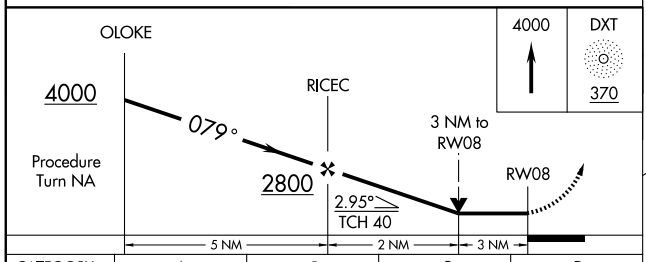
GPS RWY 8
PITTSFIELD MUNI (PSF)

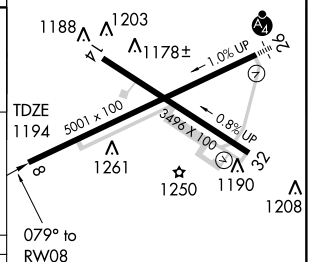
Category A and B CIRCLING NA south of Rwys 8 and 32.
Category C and D CIRCLING NA south of Rwys 8 and 26.

MISSED APPROACH: Climb to 4000 direct DXT NDB and hold.

ASOS	ALBANY APP CON	CLNC DEL	UNICOM
135.375	132.825 307.2	128.6	122.7 L (CTAF)







CATEGORY	A	B	C	D
S-8	2200-1¼ 1006 (1100-1¼)	2200-1½ 1006 (1100-1½)	2200-3 1006 (1100-3)	
CIRCLING	2200-1¼ 1006 (1100-1¼)	2200-1½ 1006 (1100-1½)	2200-3 1006 (1100-3)	

MIRL Rwys 8-26 and 14-32 L

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	5001
259°	TDZE	1176
	Apt Elev	1194

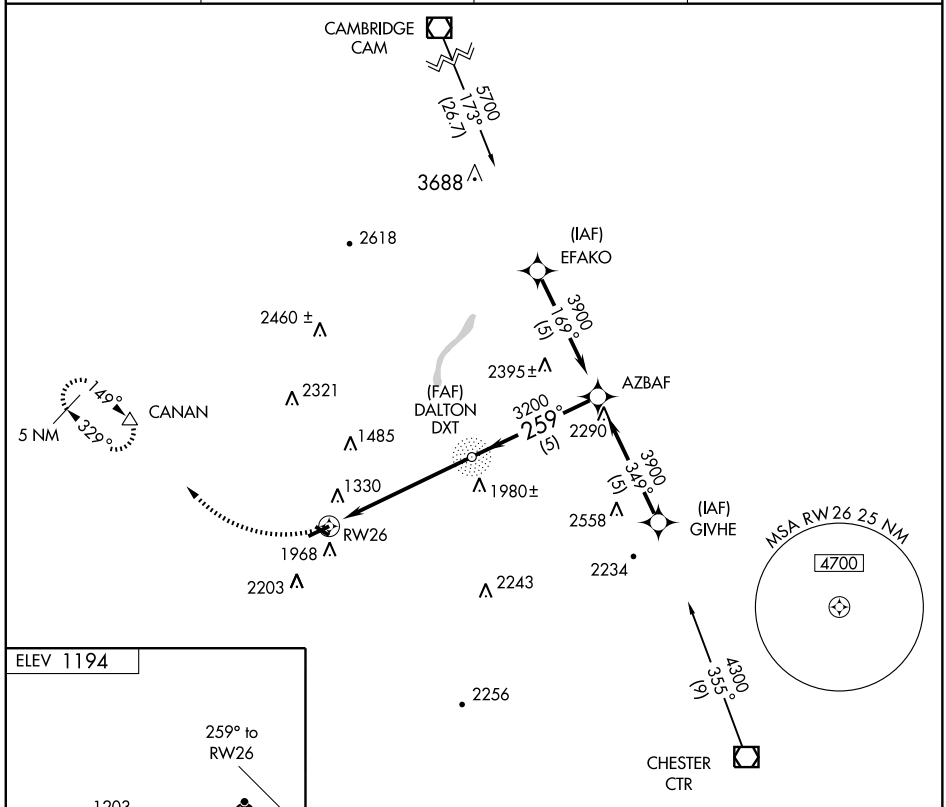
GPS RWY 26
PITTSFIELD MUNI (PSF)

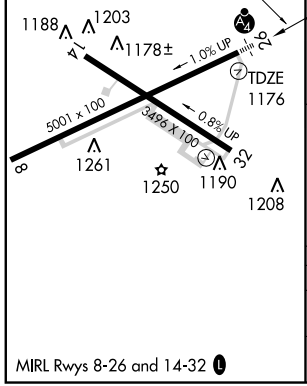
Category A and B CIRCLING NA south of Rwys 8 and 32.
Category C and D CIRCLING NA south of Rwys 8 and 26.

MALSF

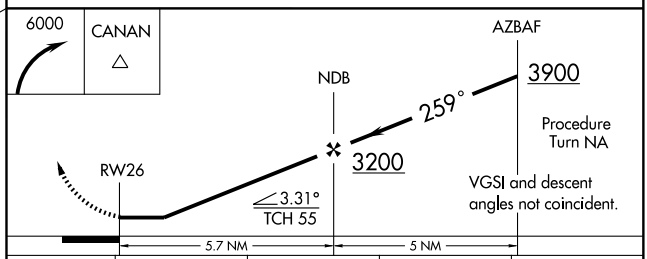
MISSED APPROACH: Climbing right turn to 6000 direct CANAN WP and hold.

ASOS	ALBANY APP CON	CLNC DEL	UNICOM
135.375	132.825 307.2	128.6	122.7 (CTAF)





MIRL Rwys 8-26 and 14-32



CATEGORY	A	B	C	D
S-26	2000-¾ 824 (900-¾)	2000-1¼ 824 (900-1¼)	2000-2½ 824 (900-2½)	2000-2¾ 824 (900-2¾)
CIRCLING	2000-1 806 (900-1)	2000-1¼ 806 (900-1¼)	2000-2½ 806 (900-2½)	2200-3 1006 (1100-3)

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-EIF 108.3 Chan 20	APP CRS 259°	Rwy ldg 5001 TDZE 1176 Apt Elev 1194

LOC RWY 26
PITTSFIELD MUNI (PSF)

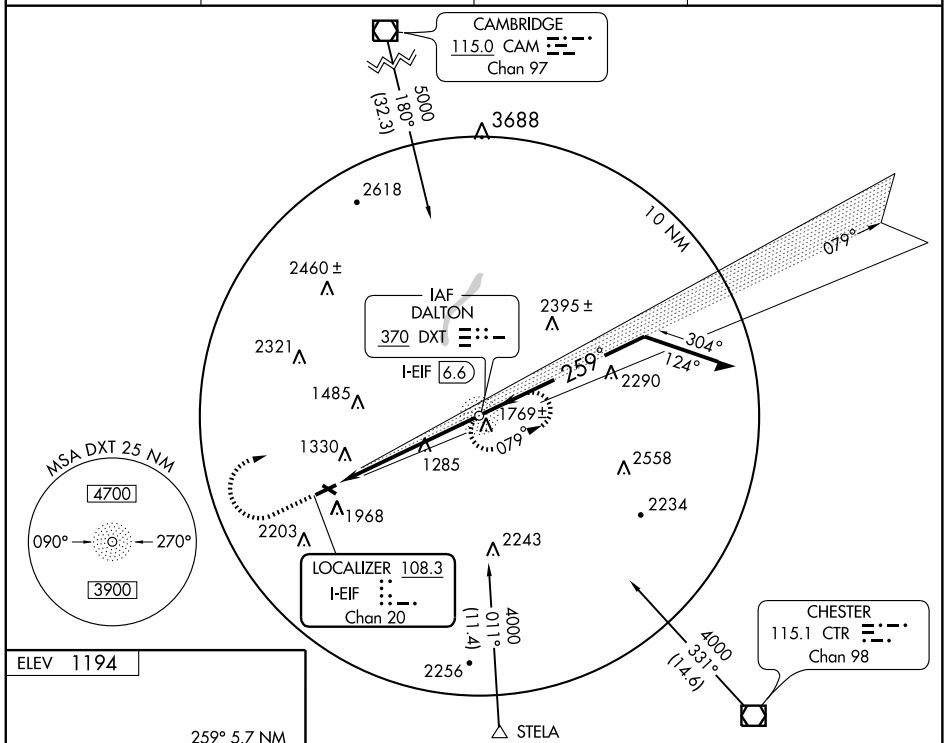
Circling NA south of Rwys 8 and 32. If local altimeter setting not received, use Albany Intl altimeter setting and increase all MDAs 200 feet. Inoperative table does not apply.

NA

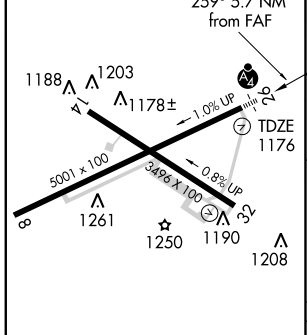
MALSF

MISSED APPROACH: Climb to 2700, then climbing right turn to 4000 direct DXT NDB and hold.

ASOS	ALBANY APP CON	CLNC DEL	UNICOM
135.375	132.825 307.2	128.6	122.7 (CTAF)



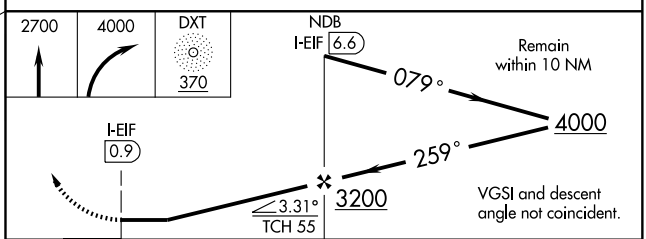
ELEV 1194



MIRL Rwys 8-26 and 14-32

FAF to MAP 5.7 NM					
Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

ADF REQUIRED



CATEGORY	A	B	C	D
S-26	1880 - 1	704 (700-1)	1880 - 2 704 (700-2)	1880 - 2¼ 704 (700-2¼)
CIRCLING	1880 - 1	686 (700-1)	1880 - 2 686 (700-2)	2200-3 1006 (1100-3)

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-PYM 109.35 Chan 30 (Y)	APP CRS 056°	Rwy ldg 4349 TDZE 145 Apt Elev 148

ILS or LOC/DME RWY 6

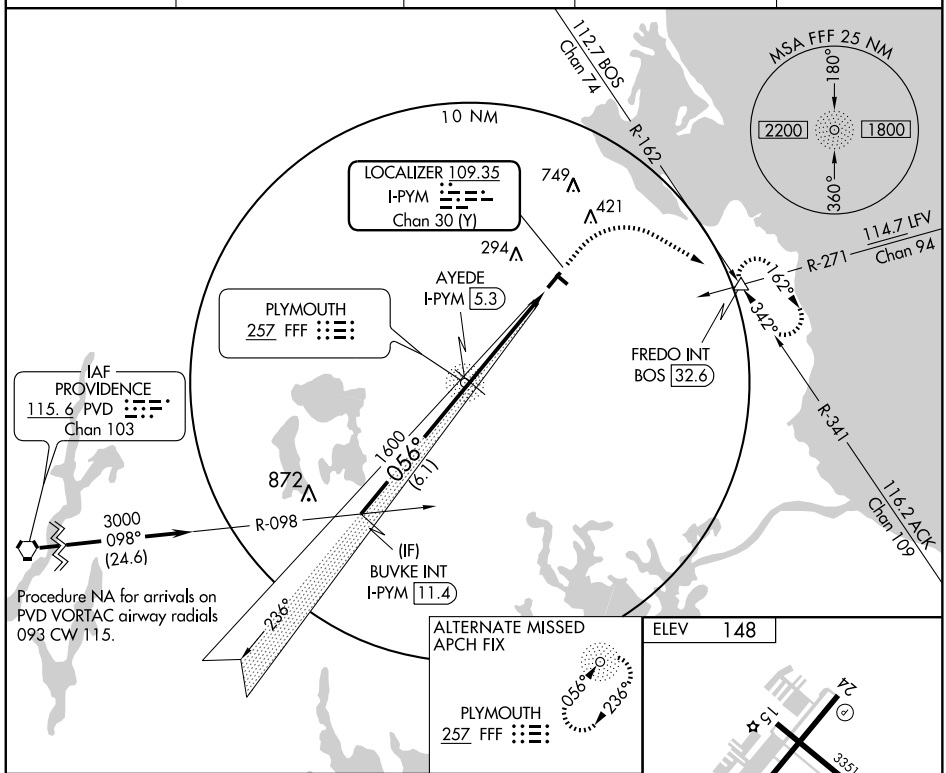
PLYMOUTH MUNI (PYM)

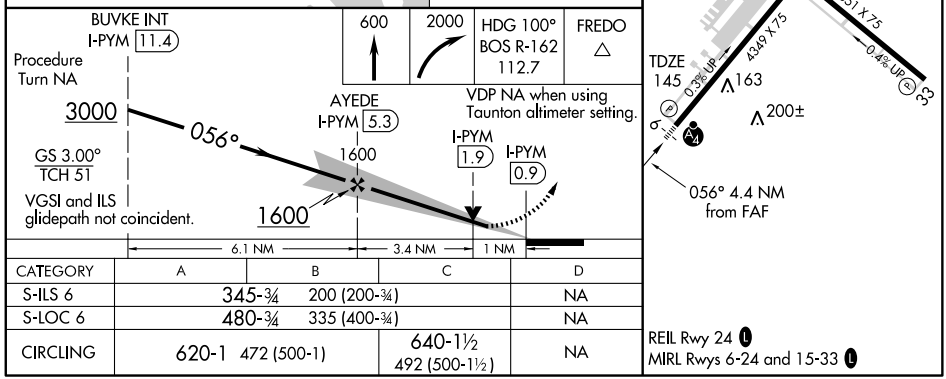
If local altimeter setting not received, use Taunton altimeter setting and increase all DAs/MDAs 60 feet.
Circling NA at night to Rwy 15.
When VGSI inop, circling Rwy 24, 33 NA at night.

MALSF

MISSED APPROACH: Climb to 600, then climbing right turn to 2000 via heading 100° and the BOS R-162 to FREDO Int/BOS 32.6 DME and hold.

ASOS	CAPE APP CON ★	CLNC DEL	UNICOM	
135.625	118.2 284.6	127.75	123.0 (CTAF)	122.9 L





CATEGORY	A	B	C	D
S-ILS 6	345-¾ 200 (200-¾)			NA
S-LOC 6	480-¾ 335 (400-¾)			NA
CIRCLING	620-1 472 (500-1)		640-1½ 492 (500-1½)	NA

REIL Rwy 24 L
MIRL Rwys 6-24 and 15-33 L

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	4349
056°	TDZE	145
	Apt Elev	148

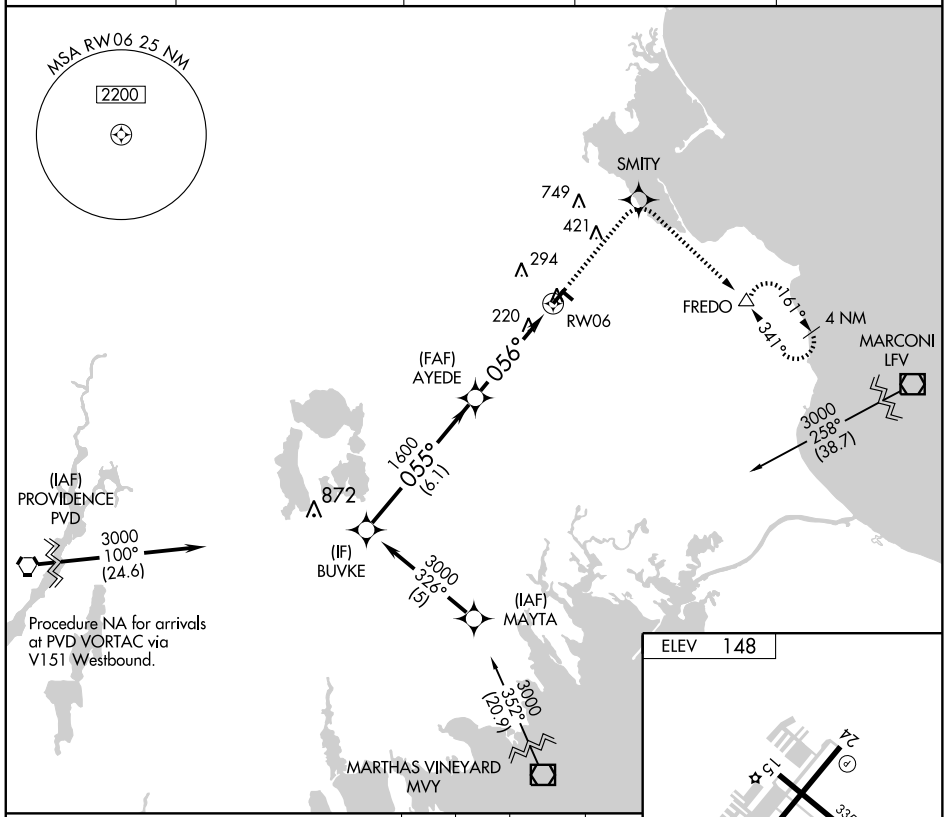
RNAV (GPS) RWY 6
PLYMOUTH MUNI (PYM)

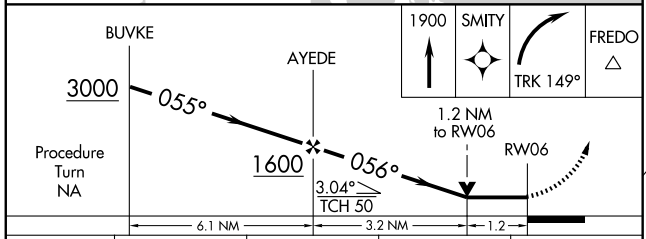
If local altimeter setting not received, use Taunton altimeter setting and increase all MDAs 60 feet. VDP NA when using Taunton altimeter setting. Inoperative table does not apply to LNAV Cat C. Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

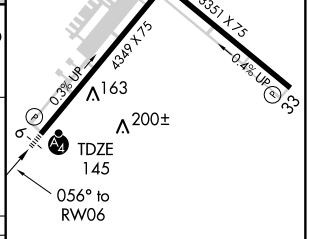
MALSF

MISSED APPROACH: Climb to 1900 direct SMITY and right turn via 149° track to FREDO and hold.

ASOS	CAPE APP CON ★	CLNC DEL	UNICOM	
135.625	118.2 284.6	127.75	123.0 (CTAF)	122.9 L







CATEGORY	A	B	C	D
LNAV MDA	560-¾ 415 (500-¾)		560-1¼ 415 (500-1¼)	NA
CIRCLING	620-1 472 (500-1)		640-1½ 492 (500-1½)	NA

REIL Rwy 24 L
MIRL Rwys 6-24 and 15-33 L

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-VQO	APP CRS	Rwy ldg	3500
111.1	075°	TDZE	9
Chan 48		Apt Elev	9

ILS RWY 7
PROVINCETOWN MUNI (PVC)

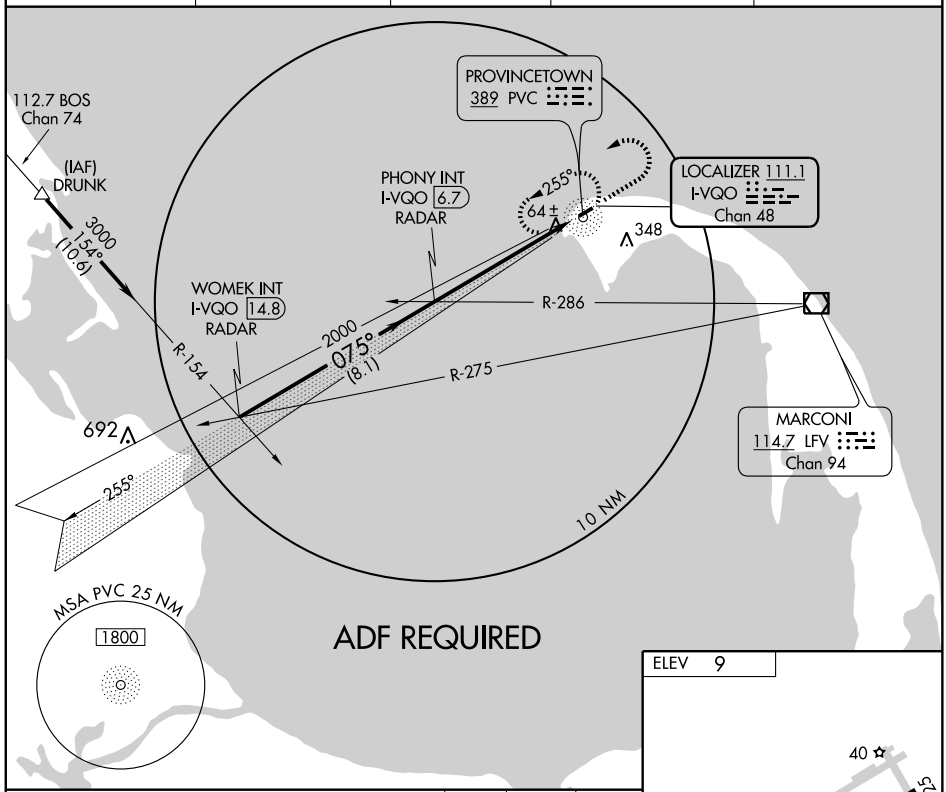
If local altimeter setting not received, use Hyannis altimeter setting and increase all DH/MDAs 80 feet.

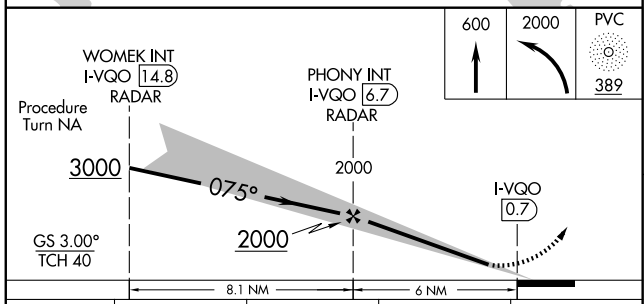
NA

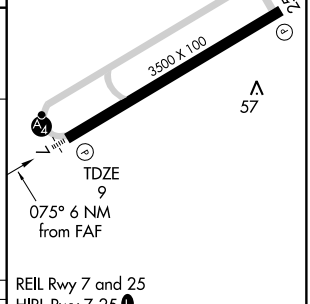
MALSF

MISSED APPROACH: Climb to 600 then climbing left turn to 2000 direct PVC NDB and hold.

AWOS-3	CAPE APP CON ★	CLNC DEL	UNICOM	
119.025	118.2	120.65	122.8 (CTAF)	122.85 L







REIL Rwy 7 and 25
HIRL Rwy 7-25 L

CATEGORY	A	B	C	D
S-ILS 7	209-¾	200 (200-¾)	NA	
S-LOC 7	320-¾	311 (400-¾)	NA	
CIRCLING	460-1	451 (500-1)	NA	

FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

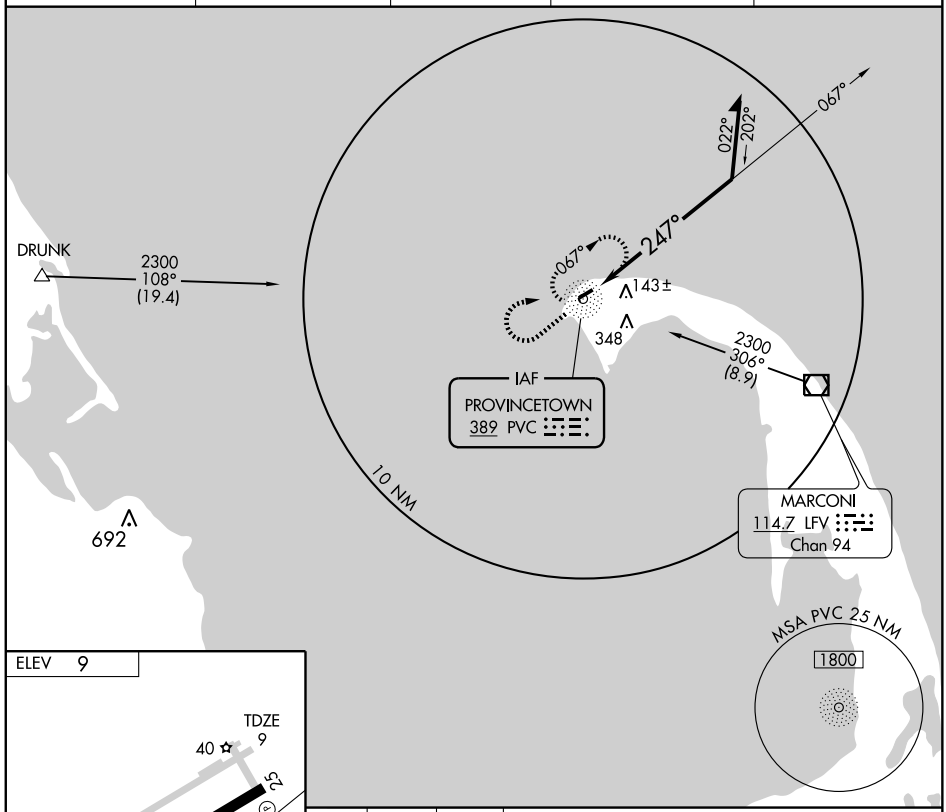
NDB PVC	APP CRS	Rwy ldg	3500
389	247°	TDZE	9
		Apt Elev	9

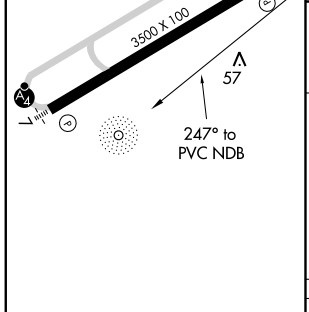
NDB RWY 25
PROVINCETOWN MUNI (PVC)

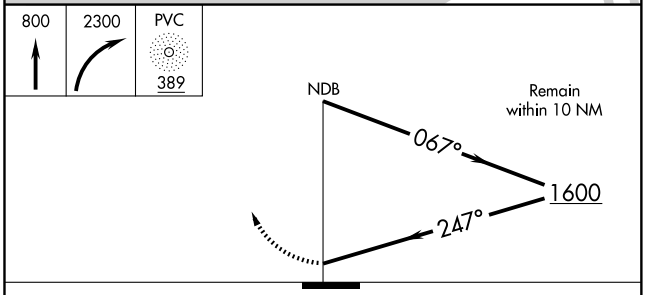
If local altimeter setting not received, use Hyannis altimeter setting and increase all MDAs 80 feet.

MISSED APPROACH: Climb to 800 then climbing right turn to 2300 direct PVC NDB and hold.

AWOS-3	CAPE APP CON ★	CLNC DEL	UNICOM	
119.025	118.2	120.65	122.8 (CTAF)	122.85 L







REIL Rwy 7 and 25
HIRL Rwy 7-25 L

CATEGORY	A	B	C	D
S-25	500-1	491 (500-1)	NA	
CIRCLING	500-1	491 (500-1)	NA	

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	3500
075°	TDZE	9
	Apt Elev	9

RNAV (GPS) RWY 7
PROVINCETOWN MUNI (PVC)

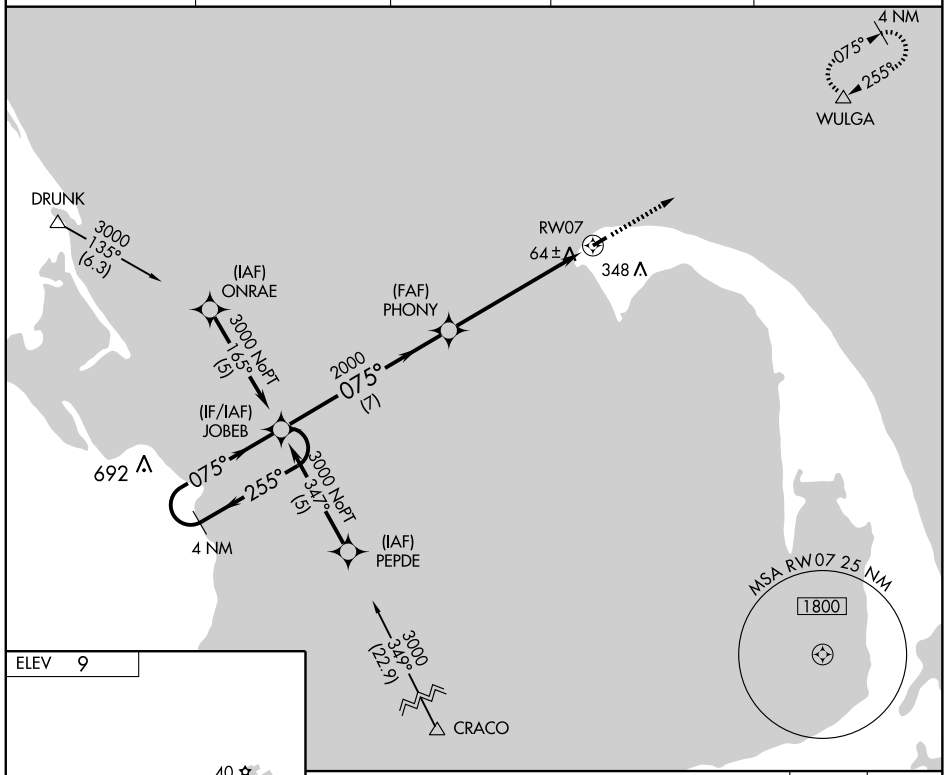
NA

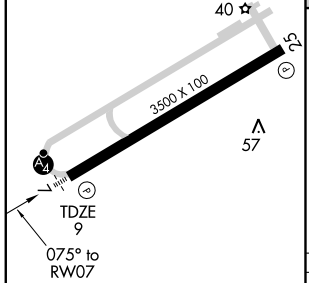
If local altimeter setting not received, use Hyannis altimeter setting and increase all DA/MDAs 80 feet.
BARO-VNAV NA below -15C (5°F).
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MALSF

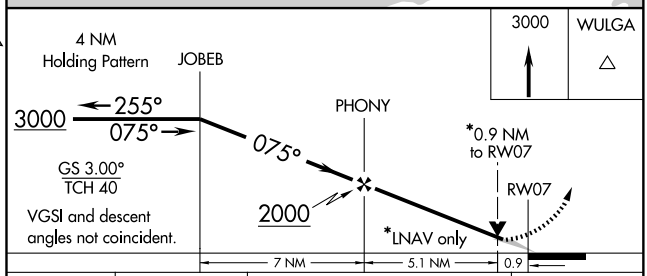
MISSED APPROACH: Climb to 3000 direct WULGA WP and hold.

AWOS-3	CAPE APP CON ★	CLNC DEL	UNICOM	
119.025	118.2	120.65	122.8 (CTAF)	122.85 L





REIL Rwy 7 and 25
HIRL Rwy 7-25 L



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	280-¾	271 (300-¾)	NA	
LNAV MDA	320-¾	311 (400-¾)	NA	
CIRCLING	460-1	451 (500-1)	NA	

APP CRS		
255°	Rwy Idg	3500
	TDZE	9
	Apt Elev	9

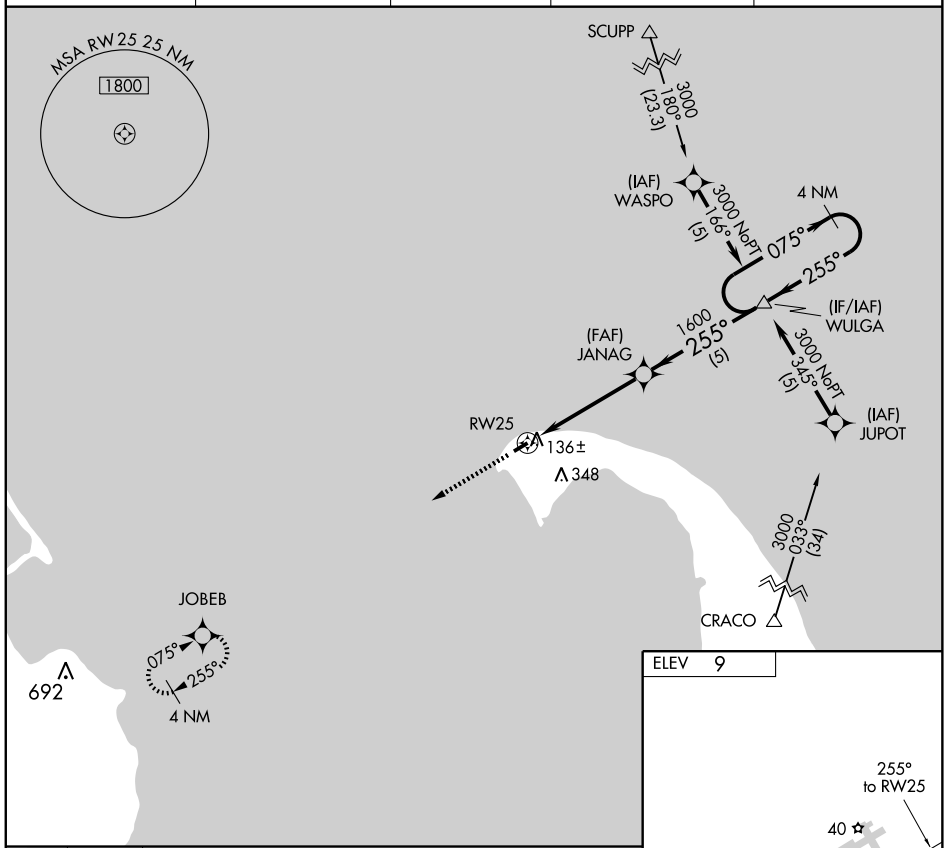
RNAV (GPS) RWY 25
PROVINCETOWN MUNI (PVC)

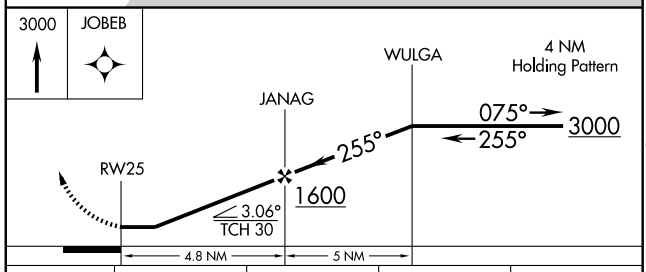
NA

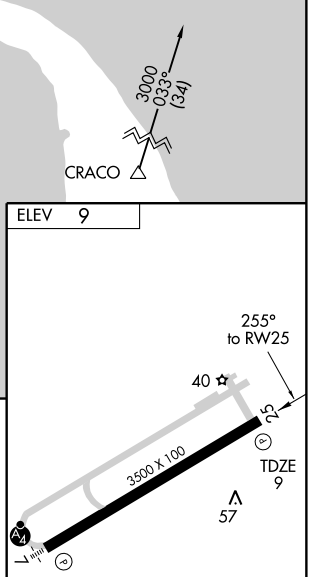
If local altimeter setting not received, use Hyannis altimeter setting and increase all DA/MDAs 80 feet.
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct JOBEB WP and hold.

AWOS-3	CAPE APP CON ★	CLNC DEL	UNICOM	
119.025	118.2	120.65	122.8 (CTAF)	122.85 L







CATEGORY	A	B	C	D
LNAV MDA	400-1	391 (400-1)	NA	
CIRCLING	460-1	451 (500-1)	NA	

REIL Rwy 7 and 25
HIRL Rwy 7-25 L

NE-1. 17 DEC 2009 to 14 JAN 2010

APP CRS	Rwy ldg	3501
022°	TDZE	697
	Apt Elev	697

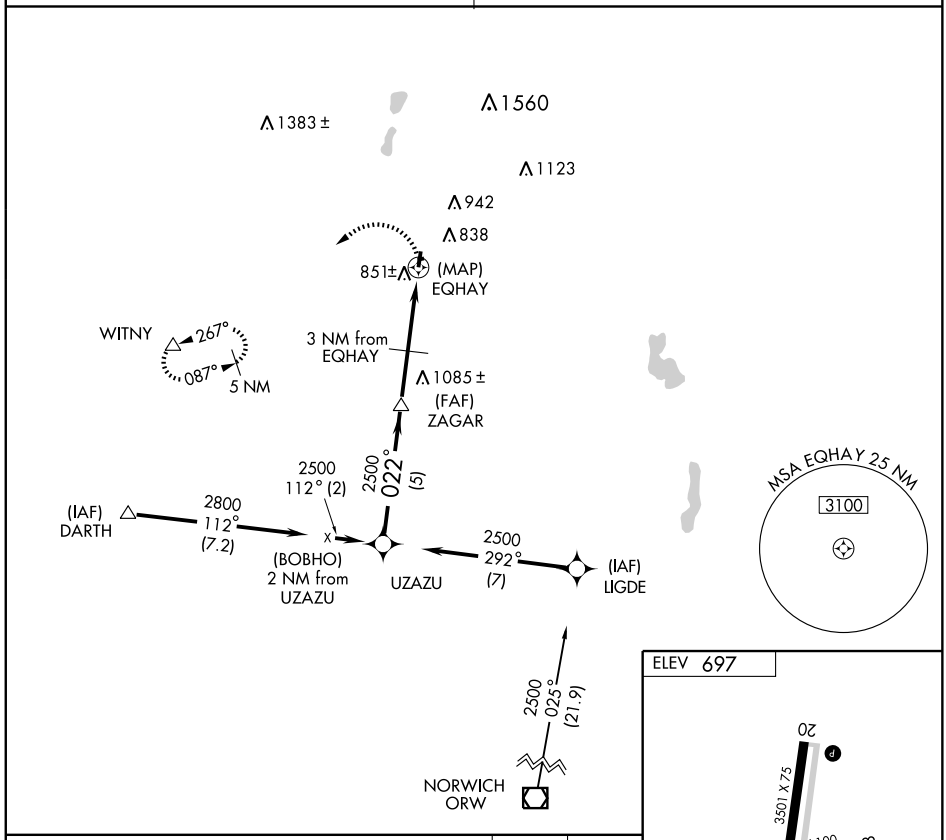
GPS RWY 2
SOUTHBRIDGE MUNI (3B0)

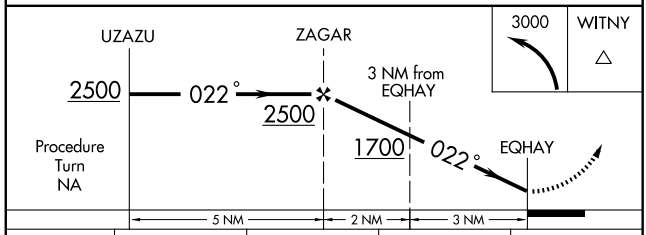
NA

Use Worcester altimeter setting.

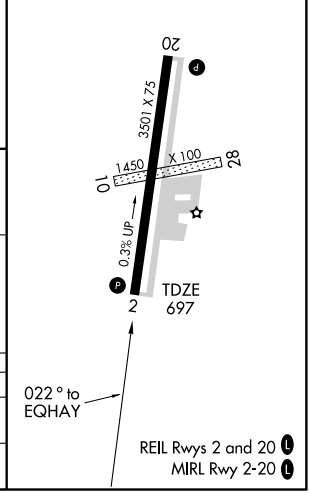
MISSED APPROACH: Climbing left turn to 3000 direct WITNY WP and hold.

BRADLEY APP CON	UNICOM
119.0 327.1	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-2	1180-1 483 (500-1)		1180-1¼ 483 (500-1¼)	NA
CIRCLING	1340-1 643 (700-1)		1340-1¾ 643 (700-1¾)	NA



VOR/DME PUT	APP CRS	Rwy ldg	N/A
117.4	329°	TDZE	N/A
Chan 121		Apt Elev	697

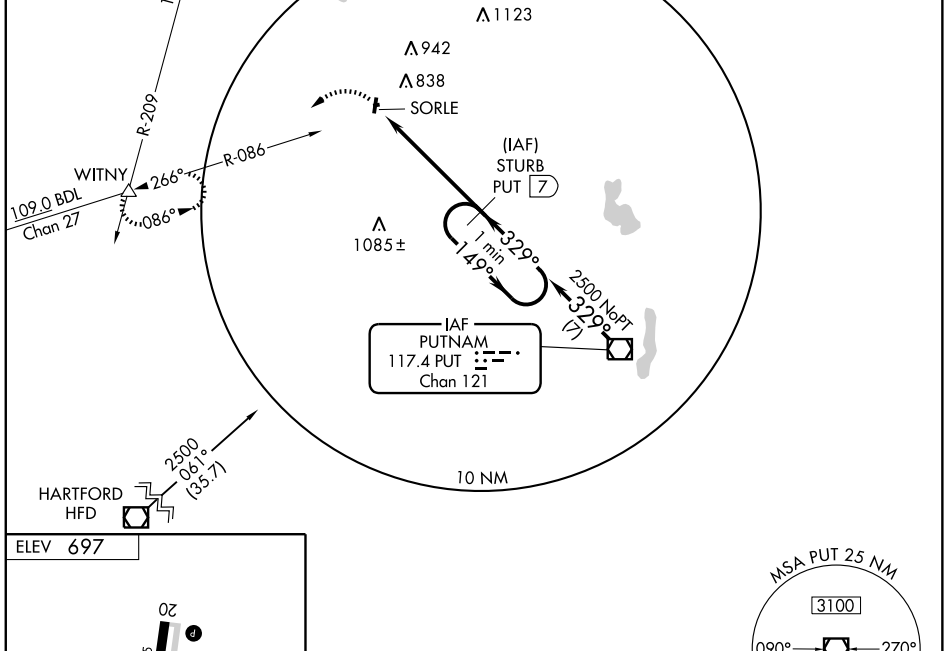
VOR/DME-B
SOUTHBRIDGE MUNI (3B0)

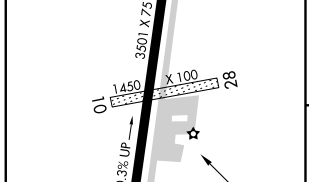
NA

Use Worcester altimeter setting.

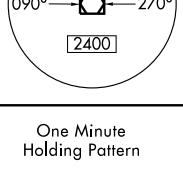
MISSED APPROACH: Climbing left turn to 2500 via BDL R-086 to WITNY Int and hold.

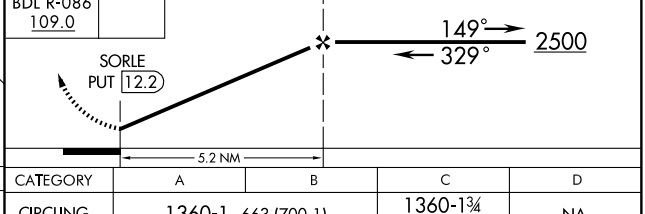
BRADLEY APP CON	UNICOM
119.0 327.1	122.8 (CTAF) L





REIL Rwys 2 and 20 L
MIRL Rwy 2-20 L

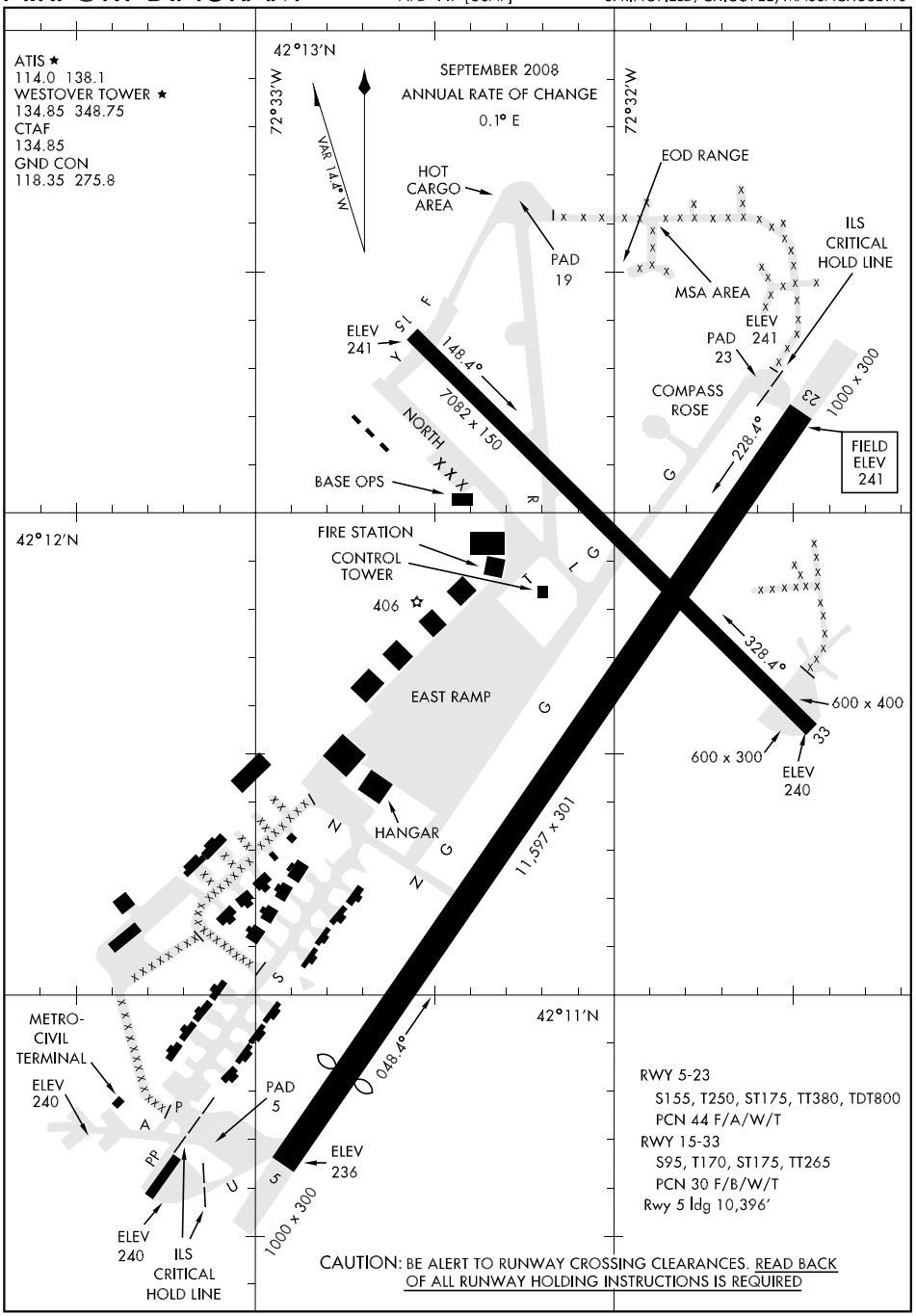




Knots	60	90	120	150	180
Min:Sec					

CATEGORY	A	B	C	D
CIRCLING	1360-1 663 (700-1)		1360-1¾ 663 (700-1¾)	NA

NE-1. 17 DEC 2009 to 14 JAN 2010

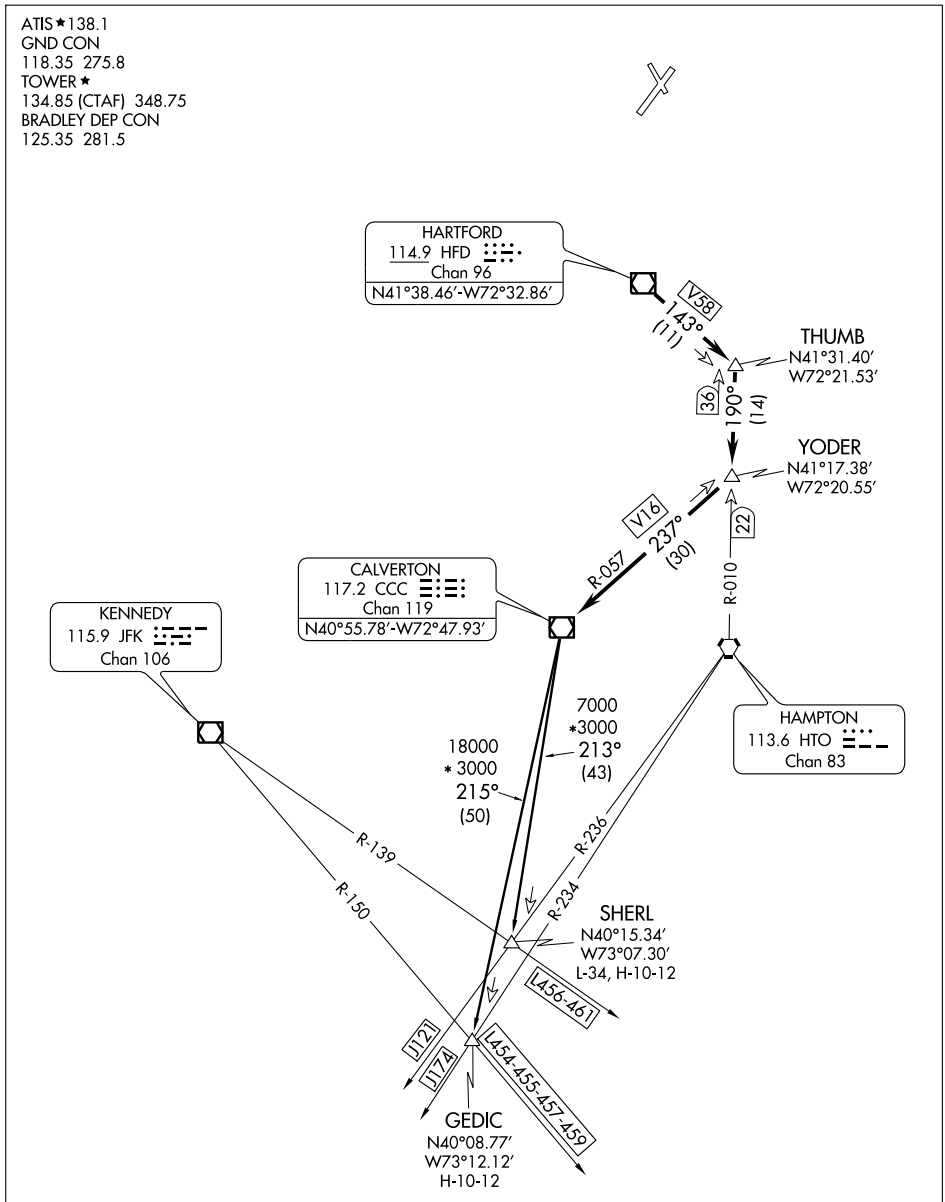

ATIS ★
114.0 138.1
WESTOVER TOWER ★
134.85 348.75
CTAF
134.85
GND CON
118.35 275.8
42°13'N
72°33'W
72°32'W
VAR 14.4° W
SEPTEMBER 2008
ANNUAL RATE OF CHANGE
0.1° E
HOT CARGO AREA
PAD 19
EOD RANGE
MSA AREA
ILS CRITICAL HOLD LINE
ELEV 241
PAD 23
COMPASS ROSE
1000 x 300
FIELD ELEV 241
ELEV 241
15
148.4°
7082 x 150
NORTH
BASE OPS
23
228.4°
42°12'N
FIRE STATION
CONTROL TOWER
406
EAST RAMP
328.4°
600 x 400
600 x 300
33
ELEV 240
HANGAR
11,597 x 301
42°11'N
METRO-CIVIL TERMINAL
ELEV 240
PAD 5
048.4°
ELEV 236
1000 x 300
ELEV 240
ILS CRITICAL HOLD LINE
RWY 5-23
S155, T250, ST175, TT380, TDT800
PCN 44 F/A/W/T
RWY 15-33
S95, T170, ST175, TT265
PCN 30 F/B/W/T
Rwy 5 ldg 10,396'
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READ BACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED

(CSTL2.CCC) 09127 SL-447 (FAA)

SPRINGFIELD/ WESTOVER ARB/METROPOLITAN (CEF)
SPRINGFIELD/CHICOPEE, MASSACHUSETTS

COASTAL TWO DEPARTURE (HI)

ATIS★138.1
GND CON
118.35 275.8
TOWER★
134.85 (CTAF) 348.75
BRADLEY DEP CON
125.35 281.5



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

NE-1, 17 DEC 2009 to 14 JAN 2010

T

DEPARTURE ROUTE DESCRIPTION

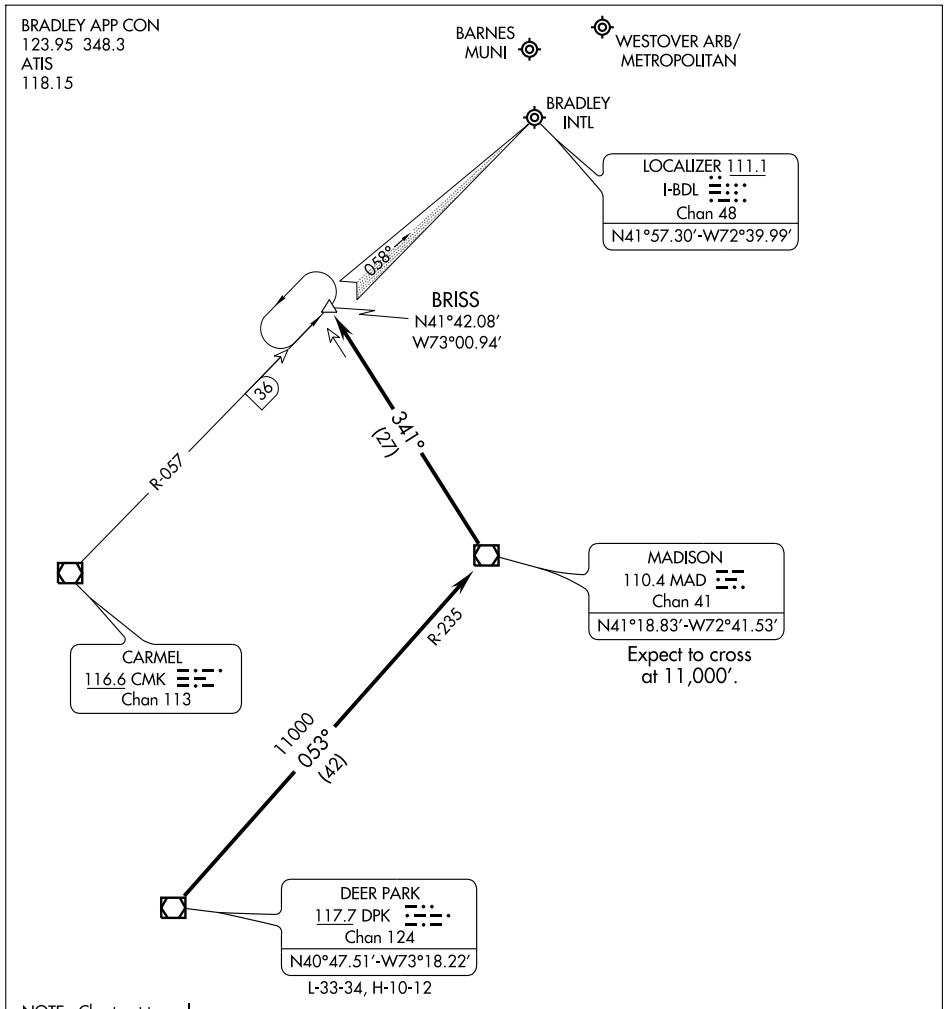
TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to HFD VOR/DME. Thence. . . .
. . . . From over HFD VOR/DME proceed via the HFD R-143 to THUMB INT, then proceed via the HTO R-010 to YODER INT, then via the CCC R-057 to CCC VOR/DME. Then via (transition) or (assigned route). Expect clearance to requested flight level ten (10) minutes after departure.
GEDIC TRANSITION (CSTL2.GEDIC): From over CCC VOR/DME via CCC R-215 to GEDIC INT.
SHERL TRANSITION (CSTL2.SHERL): From over CCC VOR/DME via CCC R-213 to SHERL INT.

(DPK.DPK2) 07298

ST-460 (FAA)

DEER PARK TWO ARRIVAL

WINDSOR LOCKS, CONNECTICUT



NOTE: Chart not to scale.

From over DPK VORTAC via DPK R-053 and MAD R-235 to MAD VOR/DME, thence from MAD VOR/DME via MAD R-341 to BRISS INT. Expect radar vectors to final approach course prior to BRISS INT when landing other than Bradley Runway 6.

ILS or LOC RWY 5

LOC I-GWJ 109.9	APCH CRS 048°	Rwy ldg 10,396 TDZE 237 Arpt Elev 241	AL-447 [USAF]	WESTOVER ARB/METROPOLITAN (KCEF)

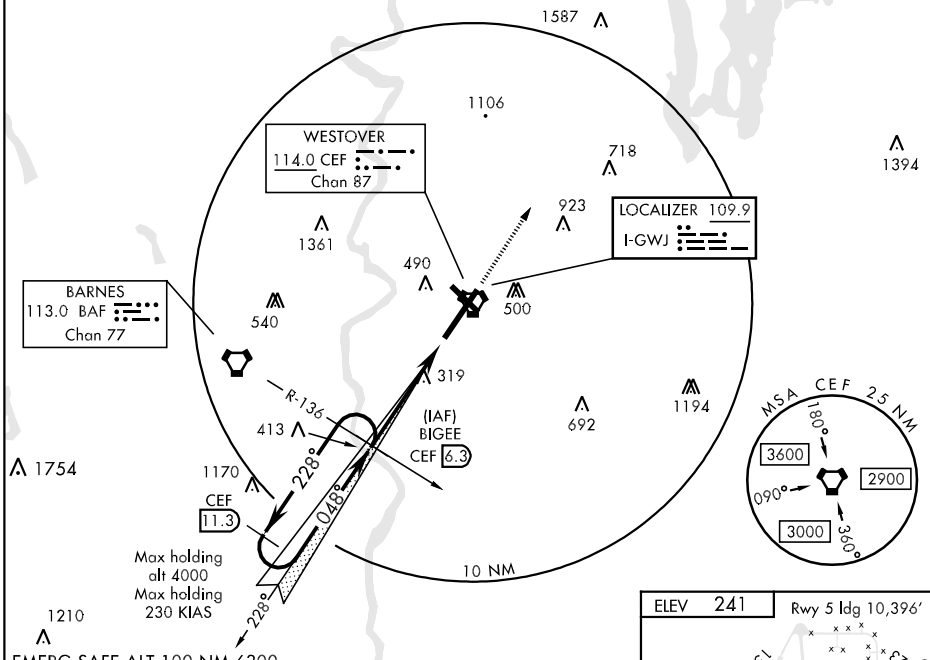
CAUTION: IFR operations prohibited to Rwy 33 at night.
* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT ABC RVR to 50 and vis to 1 mile, CAT DE RVR to 60 and vis to 1¼ miles.

ALSF-1

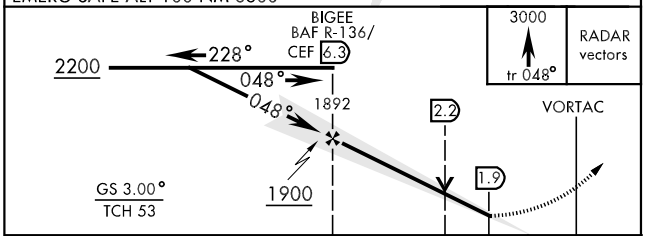
MISSED APPROACH: Climb to 3000 tracking 048°, expect RADAR vectors.

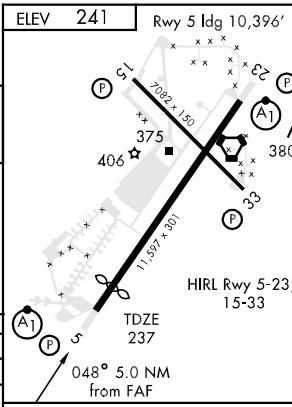
ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8

RADAR REQUIRED



EMERG SAFE ALT 100 NM 6300





CATEGORY	A	B	C	D	E
S-ILS 5 *	437/24		200	(200-½)	
S-LOC 5 **	580/24	343 (400-½)	580/40	343 (400-¾)	
CIRCLING	800-1	559 (600-1)	800-1½ 559 (600-1½)	800-2 559 (600-2)	1240-3 999 (1000-3)

FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

ILS Y or LOC RWY 23

LOC I-CEF	APCH CRS	Rwy ldg 11,597
109.9	228°	TDZE 241
		Arpt Elev 241

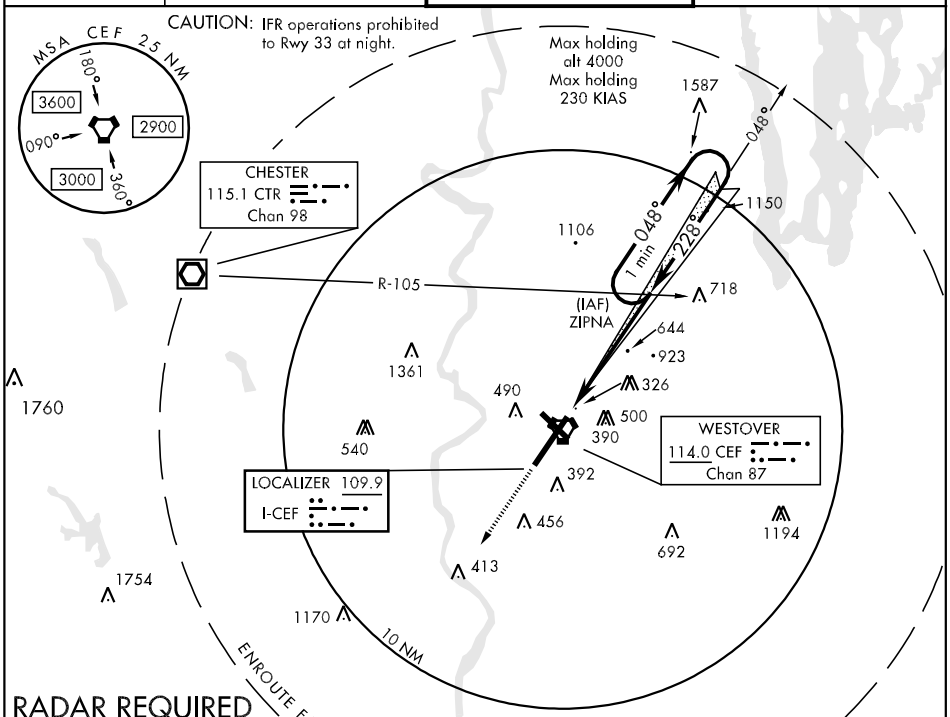
AL-447 [USAF] WESTOVER ARB/METROPOLITAN (KCEF)

* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1¾ miles, CAT D vis to 2 miles, CAT E vis to 2¼ miles.

ALSF-1

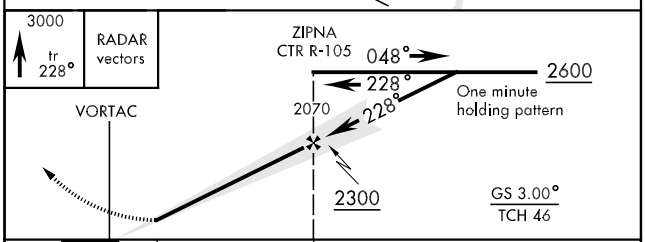
MISSED APPROACH: Climb to 3000 tracking 228°, expect RADAR vectors.

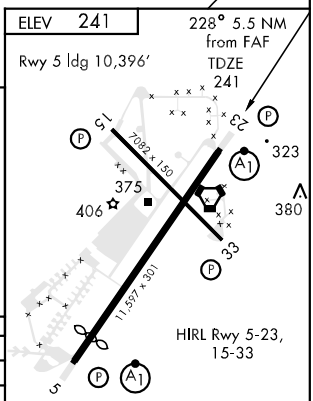
ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8



RADAR REQUIRED

EMERG SAFE ALT 100 NM 6300





CATEGORY	A	B	C	D	E
S-ILS 23 *	441/24		200	(200-½)	
S-LOC 23 **	900/24	659 (700-½)	900/60 659(700-1¼)	900-1½ 659(700-1½)	900-1¾ 659(700-1¾)
CIRCLING	900-1	659 (700-1)	900-1¾ 659(700-1¾)	900-2 659(700-2)	1240-3 999(1000-3)

FAF to MAP 5.0 NM						
Knots	60	90	120	150	180	200
Min:Sec	4:58	3:19	2:29	1:59	1:39	1:30

ILS Z or LOC/DME RWY 23

LOC I-CEF	APCH CRS	Rwy ldg 11,597
109.9	228°	TDZE 241
		Arpt Elev 241

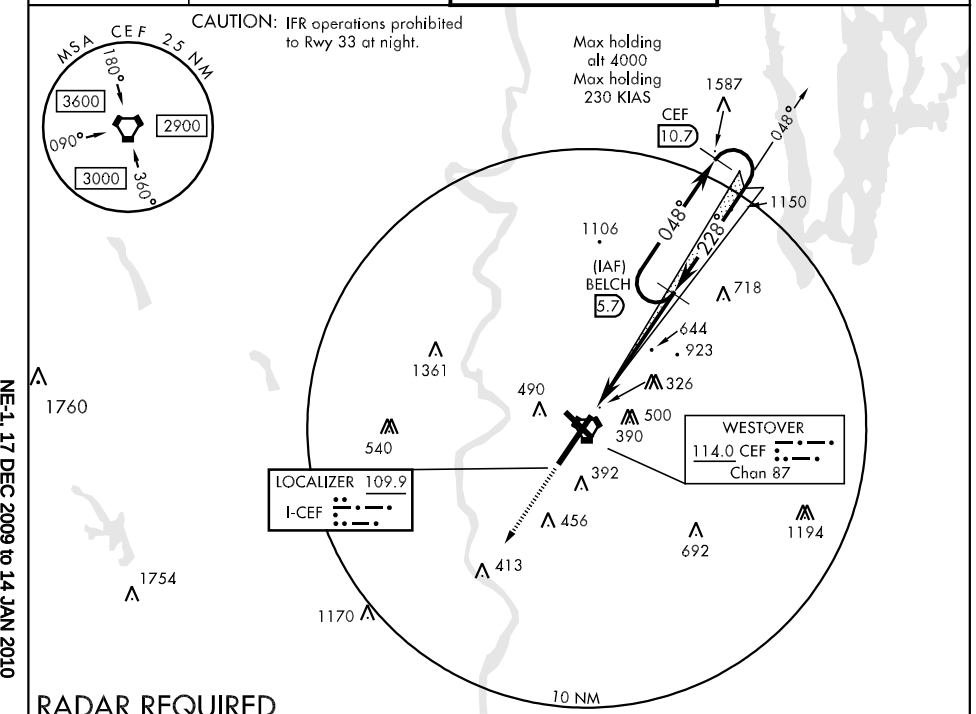
AL-447 [USAF] WESTOVER ARB/METROPOLITAN (KCEF)

* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C RVR TO 60 vis to 1¼ miles, CAT DE vis to 1½ miles.

ALSF-1

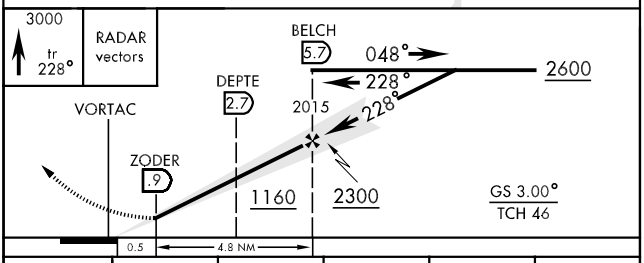
MISSED APPROACH: Climb to 3000 tracking 228°, expect RADAR vectors.

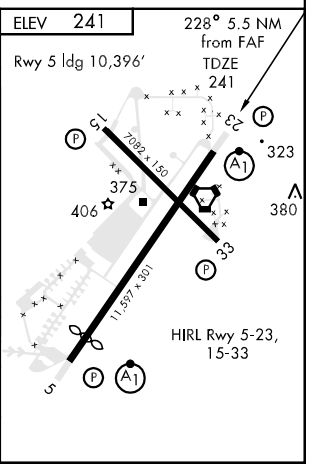
ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8



RADAR REQUIRED

EMERG SAFE ALT 100 NM 6300

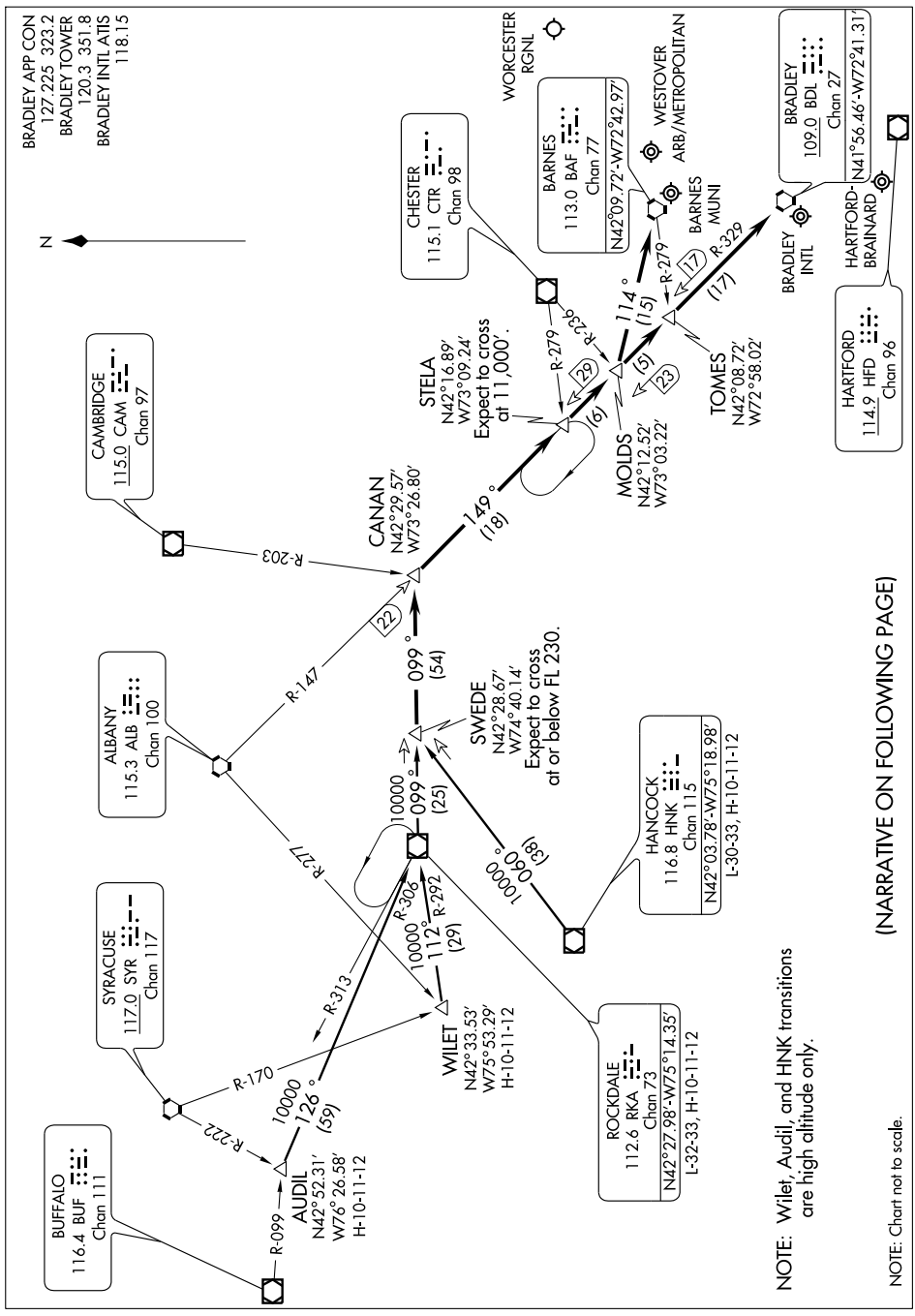




CATEGORY	A	B	C	D	E
S-ILS 23 *	441/24		200	(200-½)	
S-LOC/ ** DME 23	700/24 459 (500-½)		700/40 459(500-¾)	700/50 459 (500-1)	
CIRCLING	800-1 559 (600-1)		800-1½ 559(600-1½)	800-2 559(600-2)	1240-3 999(1000-3)

SWEDE ONE ARRIVAL (SWEDE.SWEDE1)

WINDSOR LOCKS, CONNECTICUT



SWEDE ONE ARRIVAL (SWEDE.SWEDE1)

WINDSOR LOCKS, CONNECTICUT

ARRIVAL DESCRIPTION

AUDIL TRANSITION (AUDIL.SWEDE1): From over AUDIL INT via RKA R-306 to RKA VOR/DME; then via RKA R-099 to SWEDE INT. Thence. . . .
HANCOCK TRANSITION (HNK.SWEDE1): From over HNK VOR/DME via HNK R-060 to SWEDE INT. Thence. . . .
ROCKDALE TRANSITION (RKA.SWEDE1): From over RKA VOR/DME via RKA R-099 to SWEDE INT. Thence. . . .
WILET TRANSITION (WILET.SWEDE1): From over WILET INT via RKA R-292 to RKA VOR/DME; then via RKA R-099 TO SWEDE INT. Thence. . . .
ARRIVALS FOR BRADLEY INTL and HARTFORD-BRAINARD
. . . . From over SWEDE INT via RKA R-099 to CANAN INT. Then via BDL R-329 to BDL VORTAC. Expect radar vectors to final approach course.
ARRIVALS FOR BARNES MUNI, WESTOVER ARB/METROPOLITAN and WORCESTER RGNL
. . . . From over SWEDE INT via RKA R-099 to CANAN INT. Then via BDL R-329 to MOLDS INT. Then direct to BAF VORTAC. Expect radar vectors to final approach course.

TACAN RWY 5

VORTAC CEF	APCH CRS	Rwy ldg 10,396
114.0	053°	TDZE 237
Chan 87		Arpt Elev 241

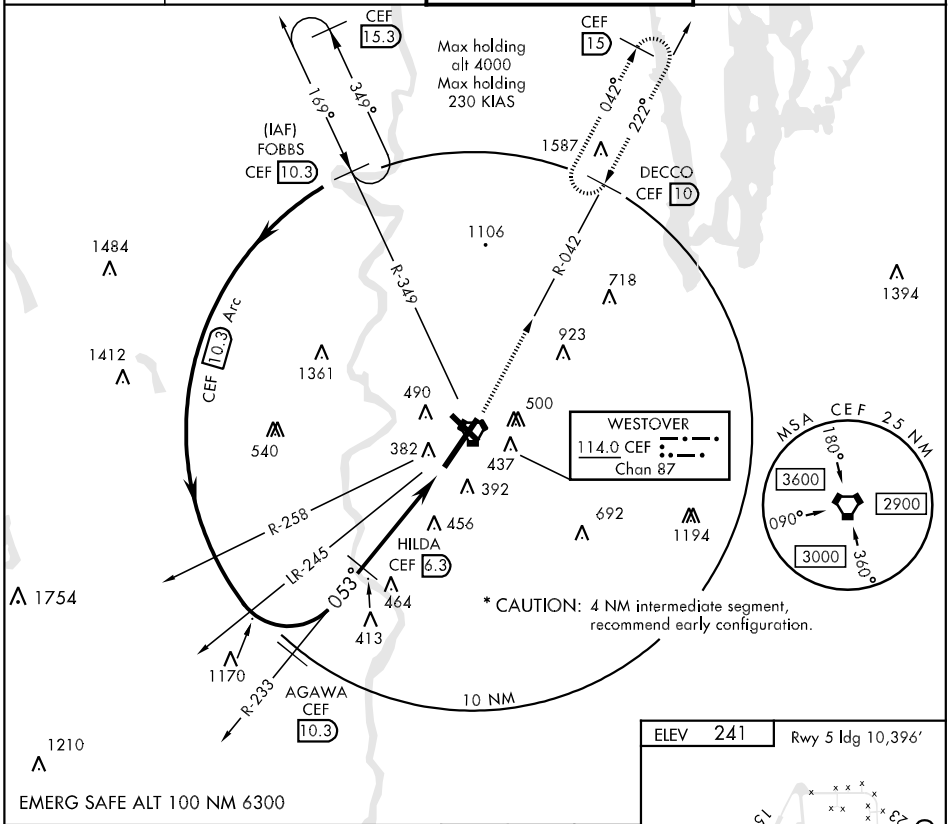
AL-447 [USAF] WESTOVER ARB/METROPOLITAN (KCEF)

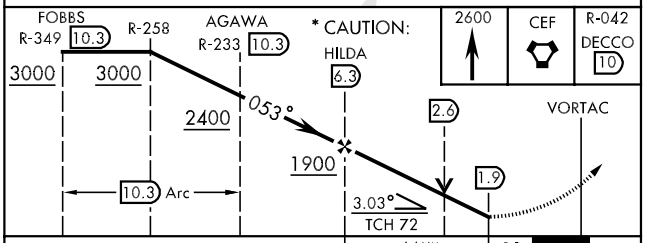
CAUTION: IFR operations prohibited to Rwy 33 at night.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C RVR to 60 and vis to 1¼ miles, CAT D vis to 1½ miles, CAT E vis to 1¾ miles.

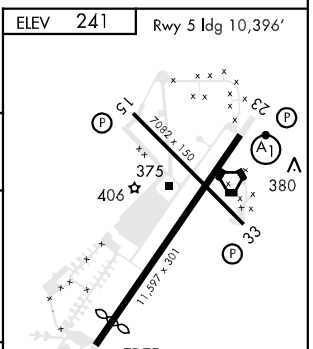
ALSF-1 (A1)

MISSED APPROACH: Climb to 2600 via CEF then R-042 to DECCO and hold.

ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8







CATEGORY	A	B	C	D	E
S-5 **	720/24 483 (500-½)		720/40 483 (500-¾)	720/50 483 (500-1)	720/60 483 (500-1¼)
CIRCLING	800-1 559 (600-1)		800-1½ 559 (600-1½)	800-2 559 (600-2)	1240-3 999 (1000-3)

TACAN RWY 23

VORTAC CEF	APCH CRS	Rwy ldg 11,597
114.0	222°	TDZE 241
Chan 87		Arpt Elev 241

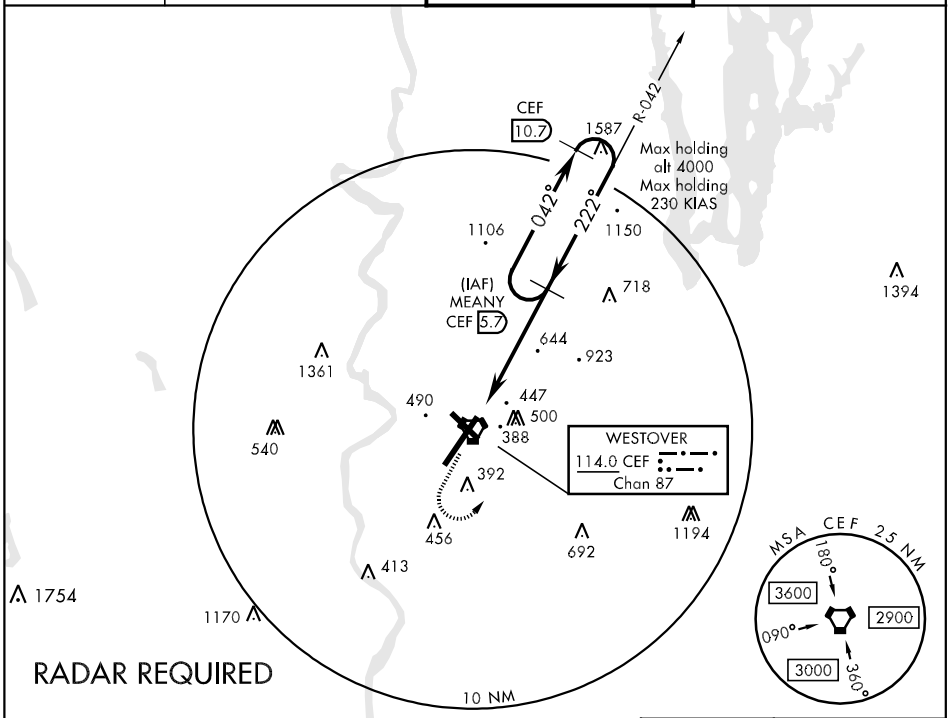
AL-447 [USAF] WESTOVER ARB/METROPOLITAN (KCEF)

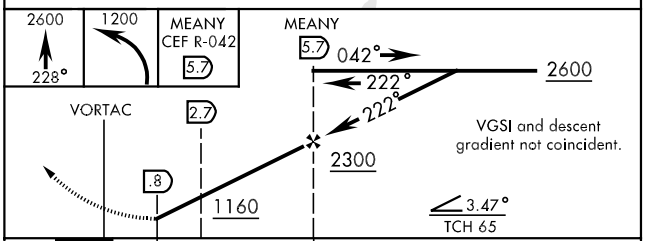
CAUTION: IFR operations prohibited to Rwy 33 at night.
* When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C RVR to 60 and vis to 1¼ miles, CAT DE vis to 1½ miles.

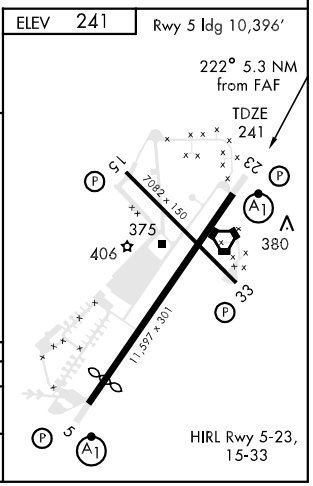
ALSF-1

MISSED APPROACH: Climb to 2600 tracking 228°, passing 1200, turn left direct MEANY and hold.

ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8







CATEGORY	A	B	C	D	E
S-23 *	700/24 459 (500-½)		700/40 459 (500-¾)	700/50 459 (500-1)	
CIRCLING	800-1 559 (600-1)		800-1½ 559 (600-1½)	800-2 559 (600-2)	1240-3 999 (1000-3)

VOR/DME RWY 23

VORTAC CEF	APCH CRS	Rwy ldg 11,597
114.0	222°	TDZE 241
Chan 87		Arpt Elev 241

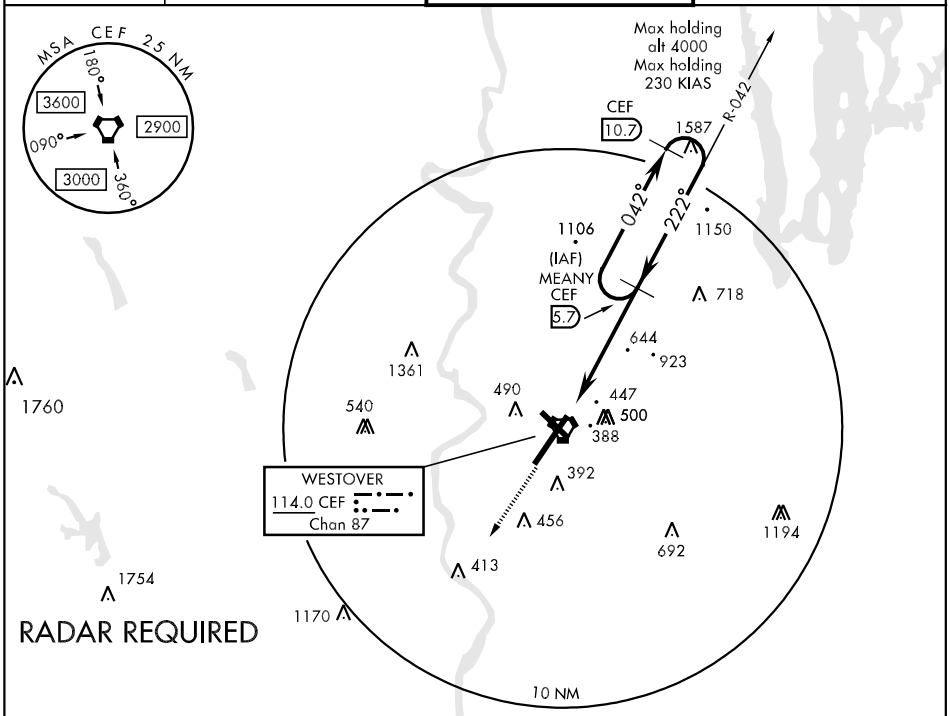
AL-447 [USAF] WESTOVER ARB/METROPOLITAN (KCEF)

* When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C RVR to 60 and vis to 1¼ miles, CAT DE vis to 1½ miles.
CAUTION: IFR operations prohibited to Rwy 33 at night.

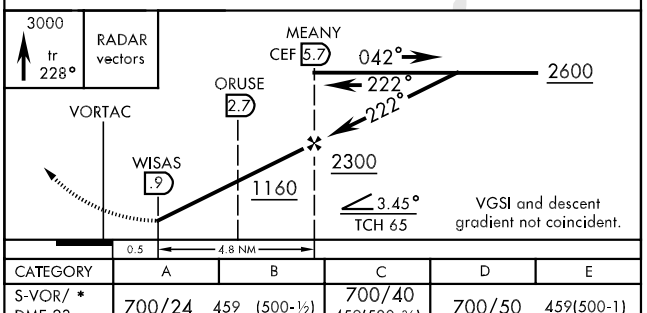
ALSF-1

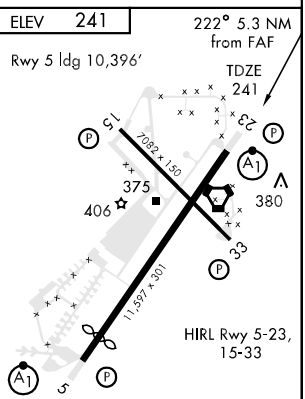
MISSED APPROACH: Climb to 3000 tracking 228°, expect RADAR vectors.

ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8



EMERG SAFE ALT 100 NM 6300





CATEGORY	A	B	C	D	E
S-VOR/ * DME 23	700/24 459 (500-½)		700/40 459(500-¾)	700/50	459(500-1)
CIRCLING	800-1 559 (600-1)		800-1½ 559(600-1½)	800-2 559(600-2)	1240-3 999(1000-3)

VOR RWY 5

VORTAC CEF	APCH CRS	Rwy ldg 10,396
114.0	053°	TDZE 237
Chan 87		Arpt Elev 241

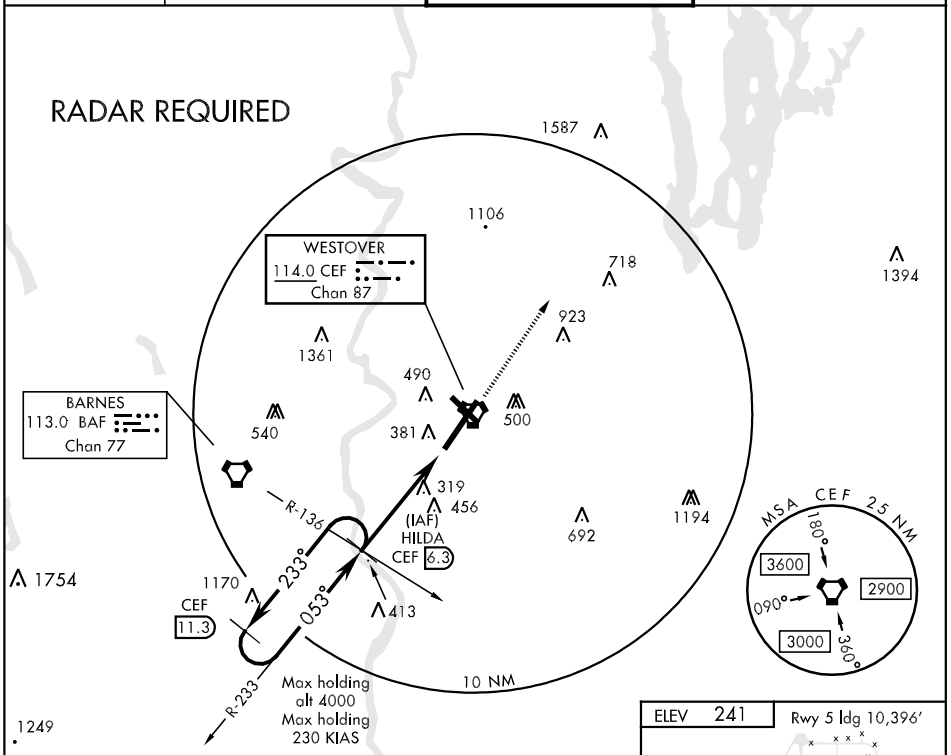
AL-447 [USAF] WESTOVER ARB/METROPOLITAN (KCEF)

CAUTION: IFR operations prohibited to Rwy 33 at night.
* When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1½ miles, CAT D vis to 1¾ miles, CAT E vis to 2 miles.

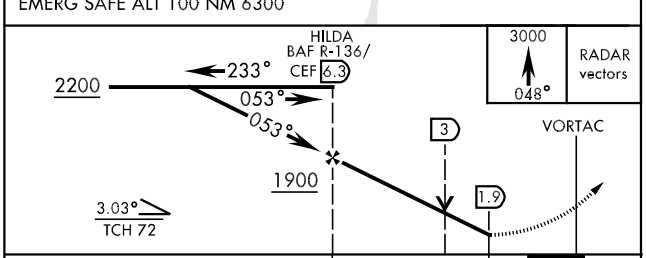
ALSF-1

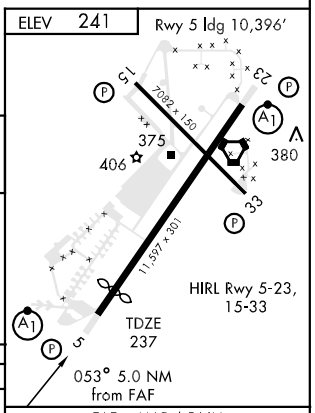
MISSED APPROACH: Climb to 3000 tracking 048°, expect RADAR vectors.

ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8



EMERG SAFE ALT 100 NM 6300





CATEGORY	A	B	C	D	E
S-5 *	820/24 583 (600-½)		820/50 583 (600-1)	820/60 583 (600-1¼)	820-1½ 583 (600-1½)
CIRCLING	820-1 579 (600-1)		820-1½ 579 (600-1½)	820-2 579 (600-2)	1260-3 1019(1100-3)

FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

VOR RWY 23

VORTAC CEF	APCH CRS	Rwy ldg 11,597
114.0	222°	TDZE 241
Chan 87		Arpt Elev 241

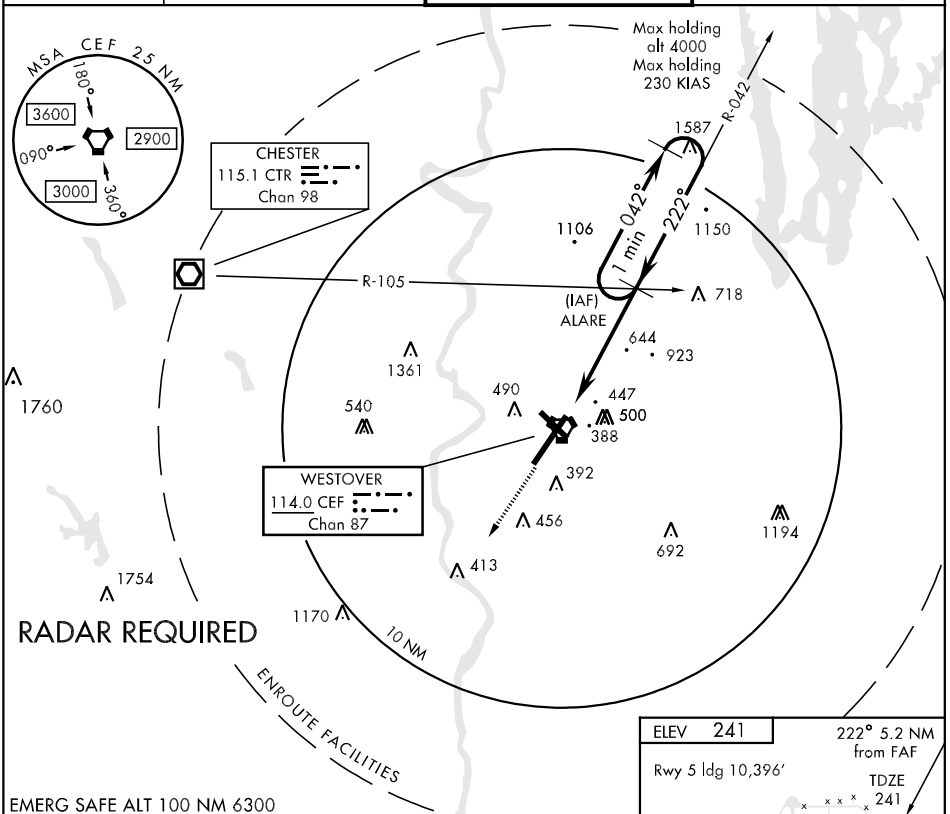
AL-447 [USAF] WESTOVER ARB/METROPOLITAN (KCEF)

* When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1¾ miles, CAT D vis to 2 miles, CAT E vis to 2¼ miles.
CAUTION: IFR operations prohibited to Rwy 33 at night

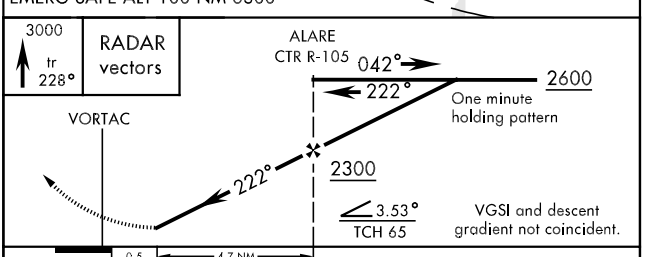
ALSF-1

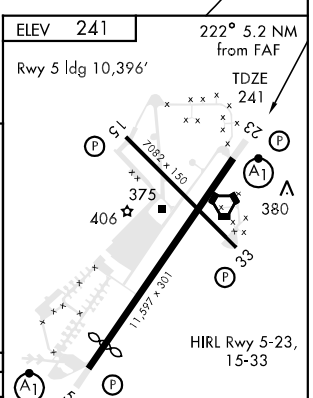
MISSED APPROACH: Climb to 3000 tracking 228°, expect RADAR vectors.

ATIS ★	BRADLEY APP CON	WESTOVER TOWER ★	GND CON
114.0 138.1	125.35 281.5	134.85 (CTAF) 348.75	118.35 275.8



EMERG SAFE ALT 100 NM 6300





CATEGORY	A	B	C	D	E
S-VOR 23*	900/24 659 (700-½)		900/60 659(700-1¼)	900-1½ 659(700-1½)	900-1¾ 659(700-1¾)
CIRCLING	900-1 659 (700-1)		900-1¾ 659(700-1¾)	900-2 659(700-2)	1240-3 999(1000-3)

FAF to MAP 4.7 NM

Knots	60	90	120	150	180	200
Min:Sec	4:42	3:08	2:21	1:53	1:34	1:24

LOM BE 332	APP CRS 275°	Rwy ldg N/A TDZE N/A Apt Elev 268

NDB or GPS-A

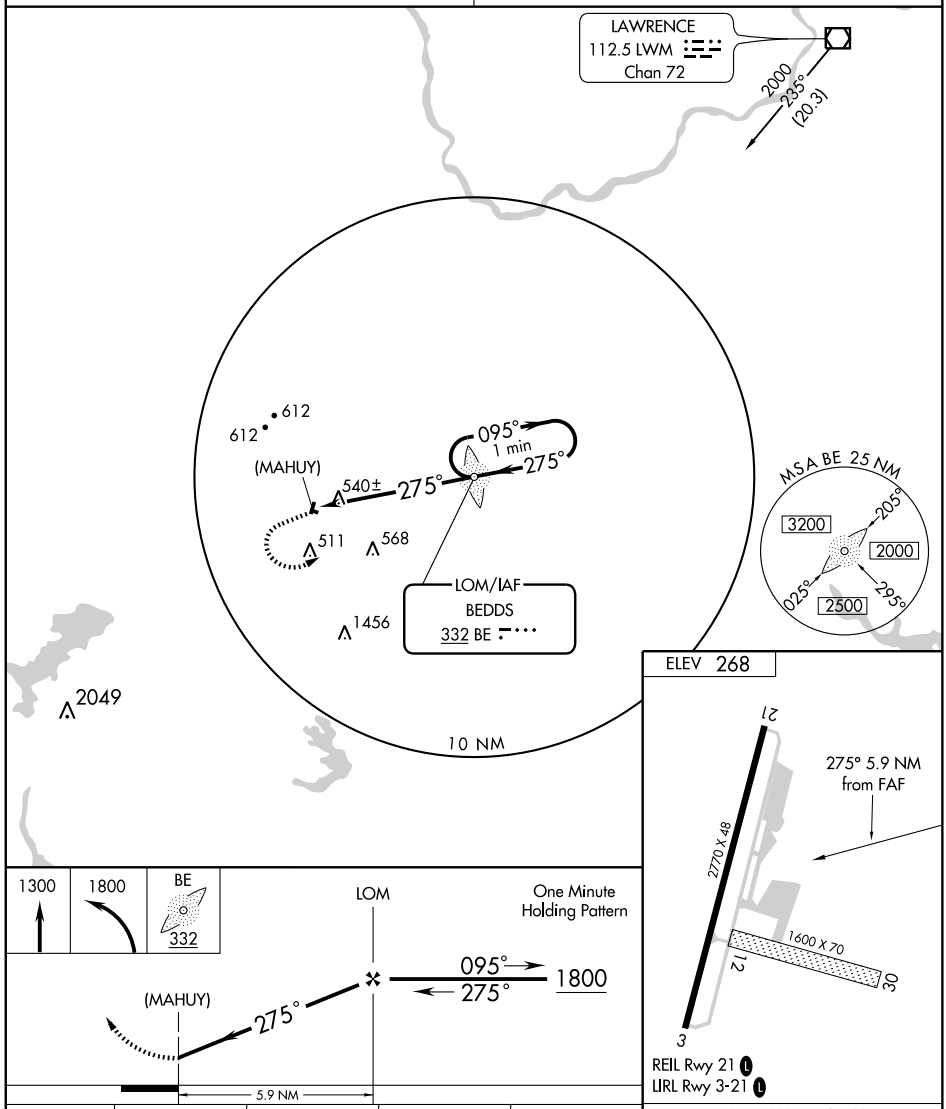
STOW/MINUTE MAN AIRFIELD (6B6)

Use Bedford, MA altimeter setting. When Bedford control zone not effective,use Boston, MA altimeter setting and increase all MDA's 60 feet. Circling NA at night.

NA

MISSED APPROACH: Climb to 1300 then climbing left turn to 1800 direct BE LOM and hold.

BOSTON APP CON	UNICOM
124.4 279.6	122.8 (CTAF) L



CATEGORY	A	B	C	D
CIRCLING	1000-1	732 (800-1)	NA	

FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NE-1. 17 DEC 2009 to 14 JAN 2010

VOR/DME MHT	APP CRS	Rwy ldg	2770
114.4	210°	TDZE	268
Chan 91		Apt Elev	268

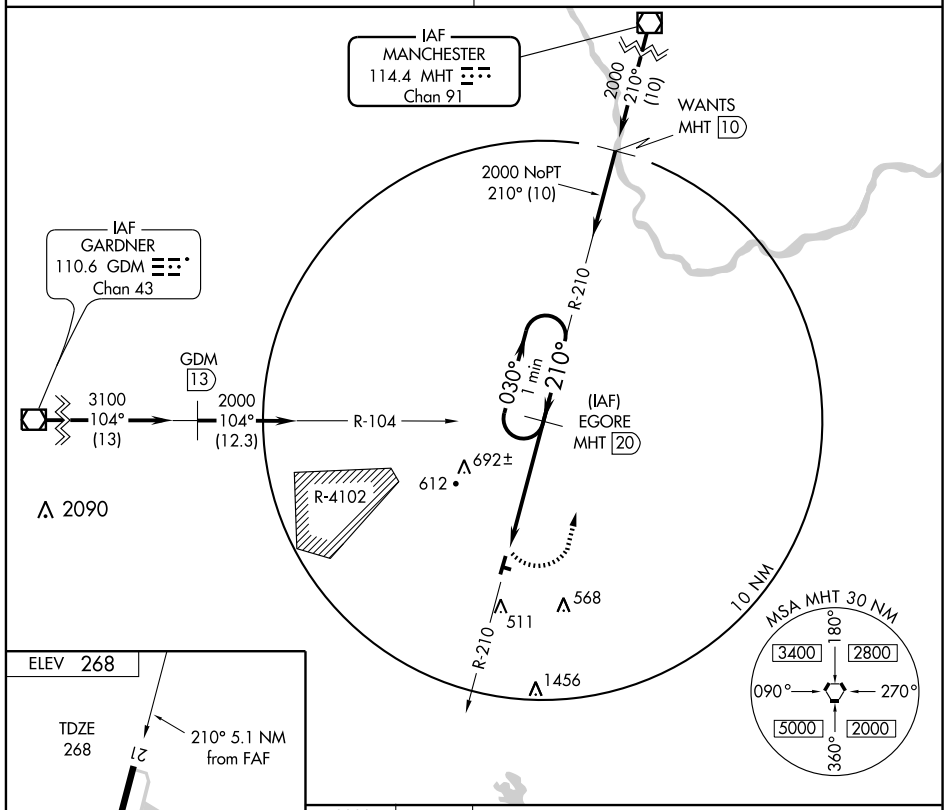
VOR/DME RWY 21

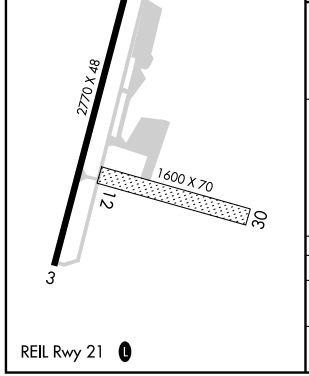
STOW/MINUTE MAN AIRFIELD (6B6)

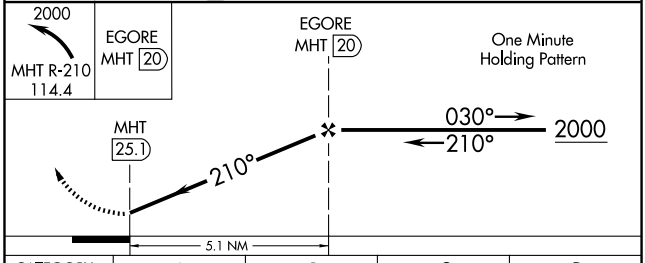
Use Bedford altimeter setting; when Bedford control zone not in effect, use Boston altimeter setting and increase all MDA's 60 feet.
NA Circling NA at night.

MISSED APPROACH: Climbing left turn to 2000 via MHT R-210 to EGORE 20 DME and hold.

BOSTON APP CON	UNICOM
124.4 279.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-21	980-1 712 (800-1)	980-1¼ 712 (800-1¼)	NA	
CIRCLING	980-1 712 (800-1)	980-1¼ 712 (800-1¼)	NA	

NE-1. 17 DEC 2009 to 14 JAN 2010

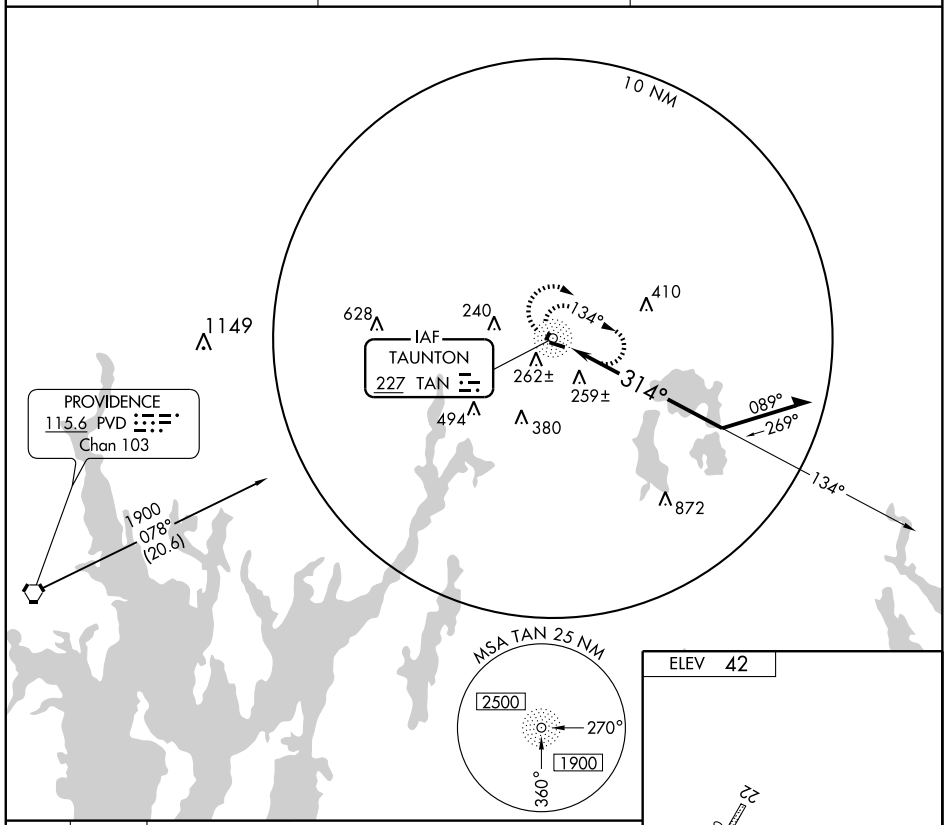
NDB TAN	APP CRS	Rwy ldg	3500
227	314°	TDZE	42
		Apt Elev	42

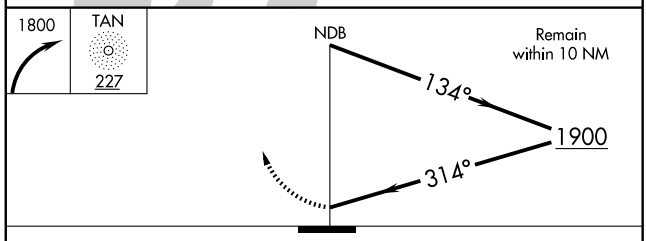
NDB or GPS RWY 30
TAUNTON MUNI - KING FIELD (TAN)

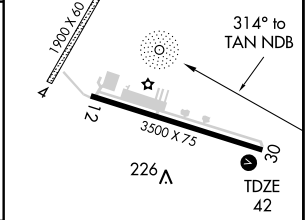
NA

MISSED APPROACH: Climbing right turn to 1800 in TAN NDB holding pattern.

ASOS	PROVIDENCE APP CON ★	UNICOM
132.675	128.7 269.525	122.7 (CTAF) L







REIL Rwy 30
MIRL Rwy 12-30 L

CATEGORY	A	B	C	D
S-30	700-1 658 (700-1)		700-1¾ 658 (700-1¾)	700-2 658 (700-2)
CIRCLING	700-1 658 (700-1)		700-1¾ 658 (700-1¾)	700-2 658 (700-2)

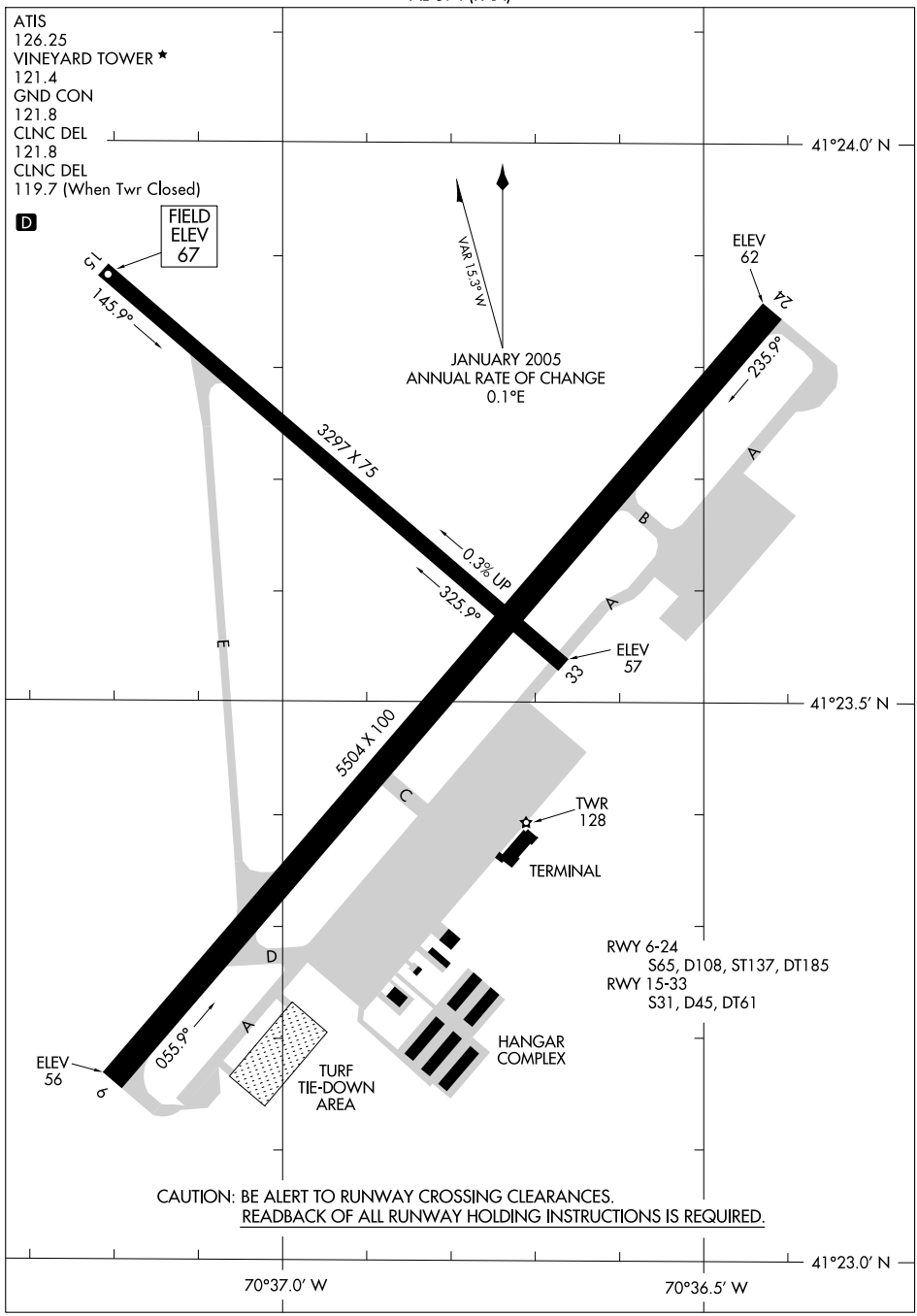
Knots	60	90	120	150	180
Min:Sec					

NE-1. 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

AL-694 (FAA)

VINEYARD HAVEN / MARTHAS VINEYARD (MVY)
VINEYARD HAVEN, MASSACHUSETTS



LOC/DME I-MVY	APP CRS	Rwy ldg	5500
108.7	236°	TDZE	62
Chan 24		Apt Elev	67

ILS or LOC RWY 24

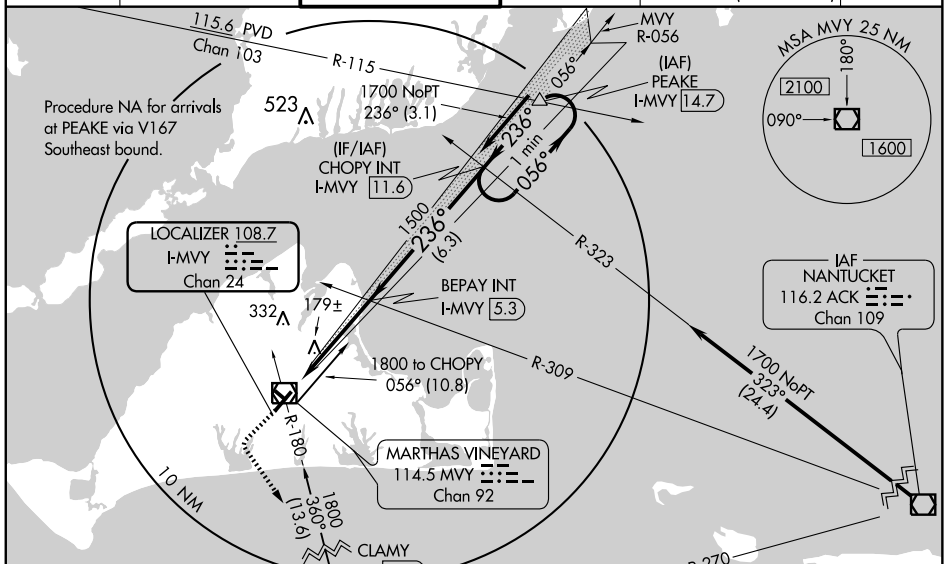
VINEYARD HAVEN / MARTHAS VINEYARD (MVY)

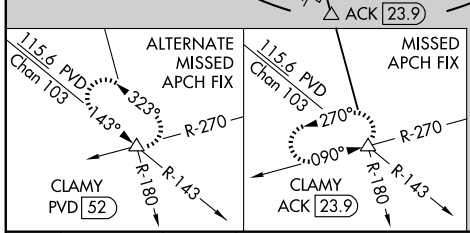
If local altimeter setting not received, use Hyannis altimeter setting and increase all DAs/MDAs 60 feet.
* RVR 1800 authorized with use of FD or AP or HUD to DA.

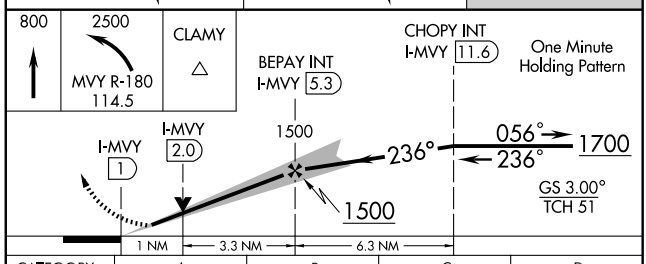
MALSR

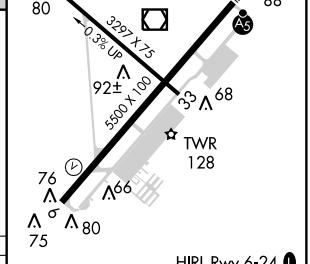
MISSED APPROACH: Climb to 800 then climbing left turn to 2500 via MVY VOR/DME R-180 to CLAMY Int / ACK 23.9 DME and hold.

ATIS	CAPE APP CON *	VINEYARD TOWER *	GND CON	CLNC DEL	UNICOM
126.25	119.7	121.4 L (CTAF)	121.8	121.8 119.7 (Tower closed)	122.95









HIRL Rwy 6-24 L
MIRL Rwy 15-33 L
REIL Rwys 6 and 33 L

CATEGORY	A	B	C	D
S-ILS 24	* 262/24 200 (200-½)			
S-LOC 24	440/24 378 (400-½)			440/40 378 (400-¾)
CIRCLING	460-1 393 (400-1)	520-1 453 (500-1)	520-1½ 453 (500-1½)	620-2 553 (600-2)

FAF to MAP 4.3 NM					
Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS CH 42601 W06A	APP CRS 056°	Rwy ldg 5500 TDZE 58 Apt Elev 67

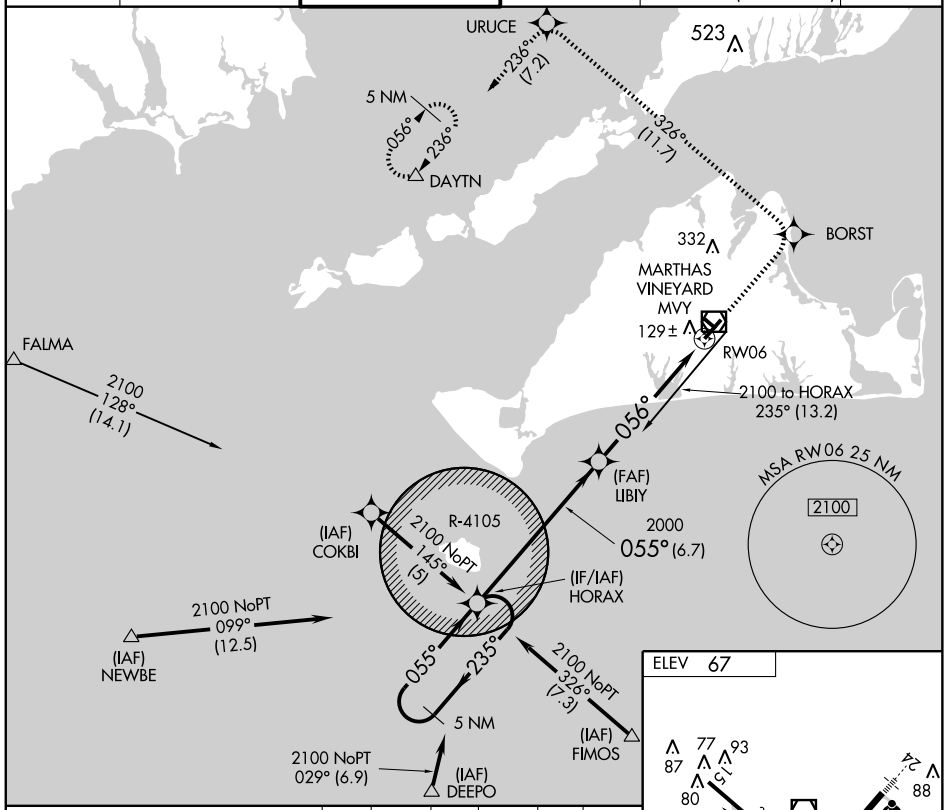
RNAV (GPS) RWY 6

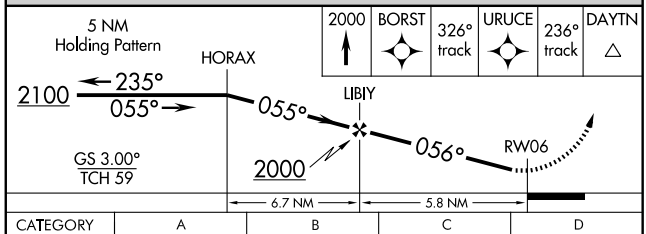
VINEYARD HAVEN / MARTHAS VINEYARD (MVY)

If local altimeter setting not received, use Hyannis altimeter setting and increase all DAs/MDAs 60 feet. Baro-VNAV NA when using Hyannis altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-03 NA. Visibility reduction by helicopters NA.

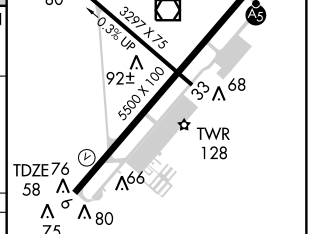
MISSED APPROACH: Climb to 2000 direct BORST and via 326° track to URUCE and via 236° track to DAYTN and hold.

ATIS	CAPE APP CON ★	VINEYARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.25	119.7	121.4 (L) (CTAF)	121.8	121.8 119.7 (Tower closed)	122.95





CATEGORY	A	B	C	D
LPV DA	323-1	265 (300-1)		
LNAV/VNAV DA	399-1¼	341 (400-1¼)		
LNAV MDA	380-1	322 (400-1)		
CIRCLING	460-1 393 (400-1)	520-1 453 (500-1)	520-1½ 453 (500-1½)	620-2 553 (600-2)



HIRL Rwy 6-24 (L)
MIRL Rwy 15-33 (L)
REIL Rwys 6 and 33 (L)

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS CH 48804 W24A	APP CRS 236°	Rwy ldg 5500 TDZE 62 Apt Elev 67

RNAV (GPS) RWY 24

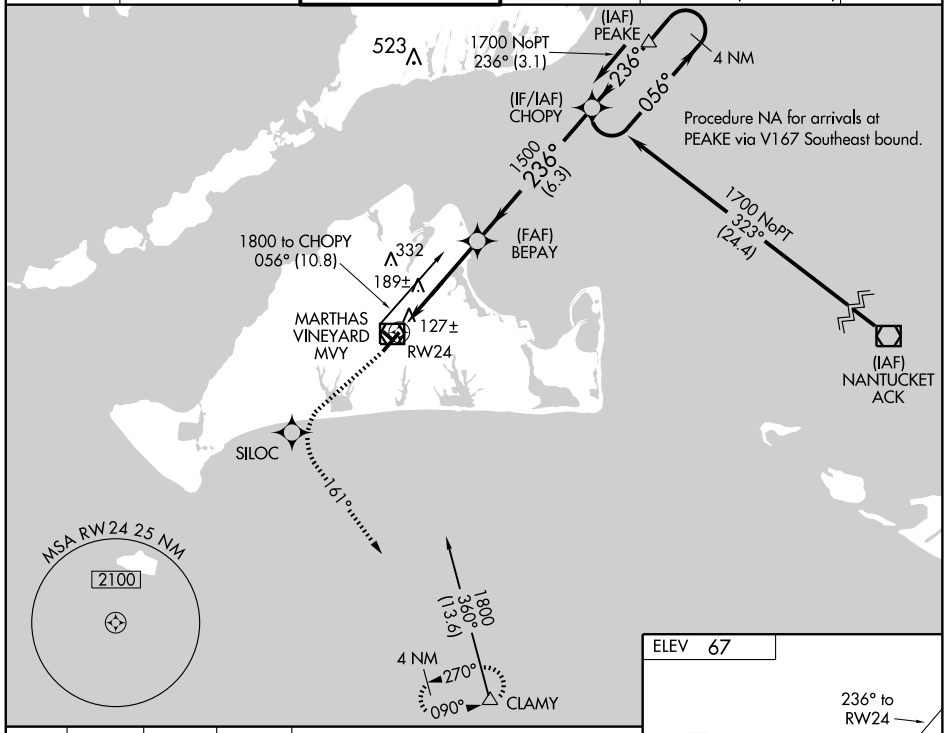
VINEYARD HAVEN / MARTHAS VINEYARD (MVY)

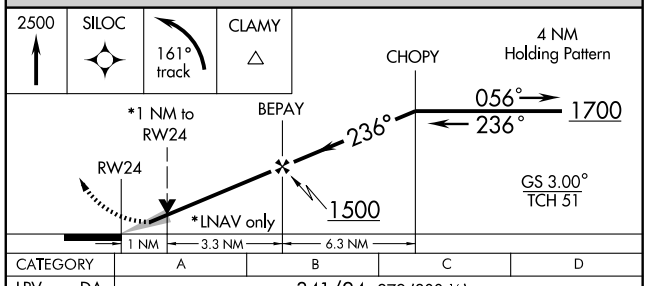
If local altimeter setting not received, use Hyannis altimeter setting and increase all DAs/MDAs 60 feet. VDP and Baro-VNAV NA when using Hyannis altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). For inoperative MALSR, increase LPV all Cats visibility to RVR 5000 and LNAV Cat D visibility to RVR 6000. DME/DME RNP-0.3 NA.

MALSR

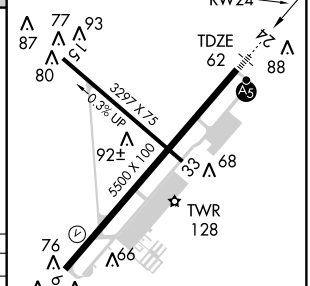
MISSED APPROACH: Climb to 2500 direct SILOC and left turn via 161° track to CLAMY and hold.

ATIS	CAPE APP CON ★	VINEYARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.25	119.7	121.4 L (CTAF)	121.8	121.8 119.7 (Tower closed)	122.95





CATEGORY	A	B	C	D
LPV DA	341/24 279 (300-½)			
LNAV/VNAV DA	392/40 330 (400-¾)			
LNAV MDA	440/24 378 (400-½)			440/50 378 (400-1)
CIRCLING	460-1 393 (400-1)	520-1 453 (500-1)	520-1½ 453 (500-1½)	620-2 553 (600-2)



HIRL Rwy 6-24 L
MIRL Rwy 15-33 L
REIL Rwys 6 and 33 L

NE-1. 17 DEC 2009 to 14 JAN 2010

VOR/DME MVY	APP CRS	Rwy ldg	5500
114.5	050°	TDZE	59
Chan 92		Apt Elev	68

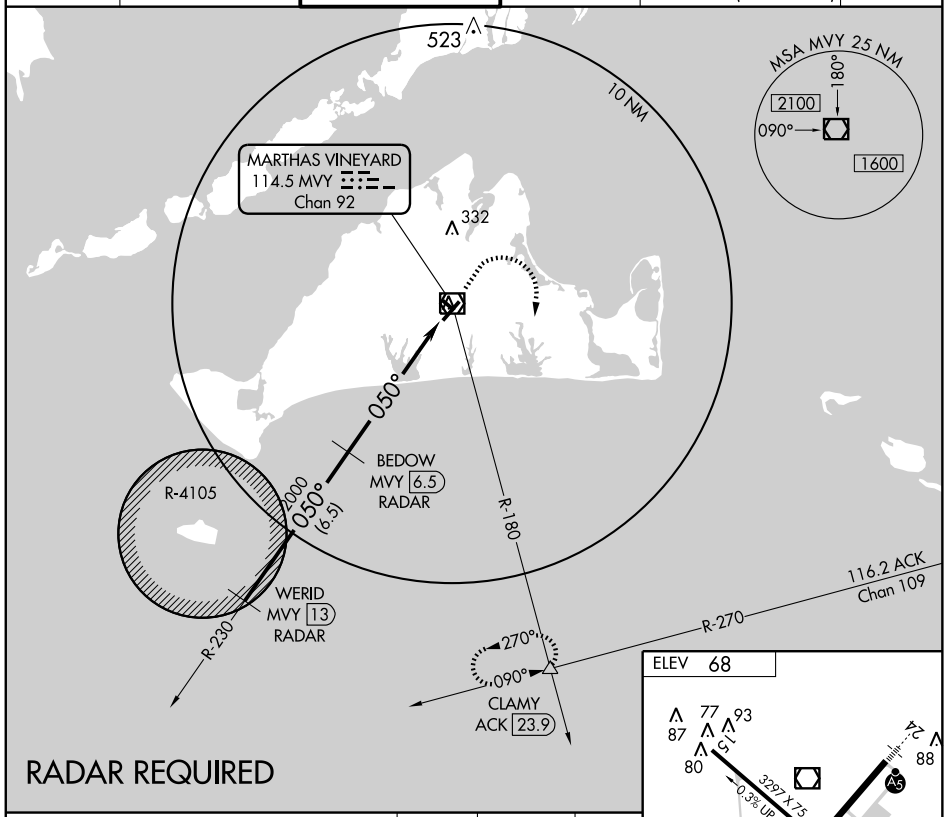
VOR RWY 6

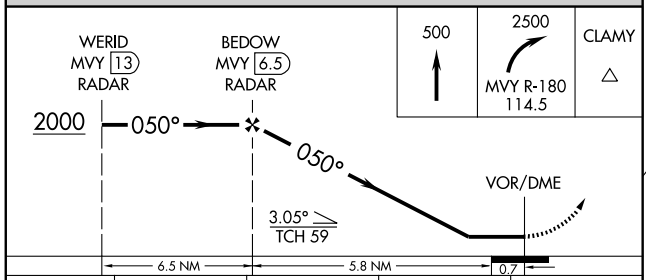
VINEYARD HAVEN / MARTHAS VINEYARD (MVY)

Radar or DME Required.
If local altimeter setting not received, use Hyannis altimeter setting and increase all MDAs 60 feet.

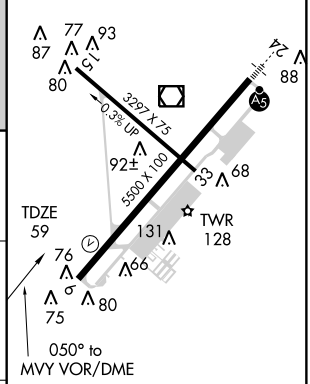
MISSED APPROACH: Climb to 500 then climbing right turn to 2500 via MVY VOR/DME R-180 to CLAMY Int and hold.

ATIS	CAPE APP CON ★	VINEYARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.25	119.7	121.4 L (CTAF)	121.8	121.8 / 119.7 (Tower closed)	122.95





CATEGORY	A	B	C	D
S-6	400-1		341 (400-1)	
CIRCLING	460-1 392 (400-1)	520-1 452 (500-1)	520-1½ 452 (500-1½)	620-2 552 (600-2)



HIRL Rwy 6-24 L
MIRL Rwy 15-33 L
REIL Rwys 6 and 33 L

NE-1. 17 DEC 2009 to 14 JAN 2010

VOR/DME MVY	APP CRS	Rwy ldg	5500
114.5	247°	TDZE	63
Chan 92		Apt Elev	68

VOR RWY 24

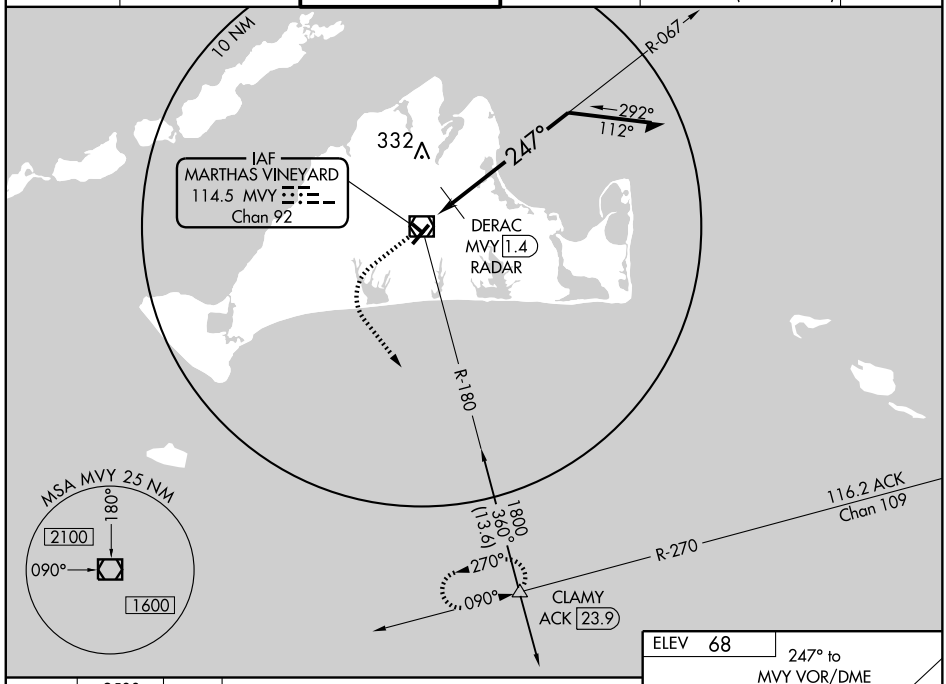
VINEYARD HAVEN / MARTHAS VINEYARD (MVY)

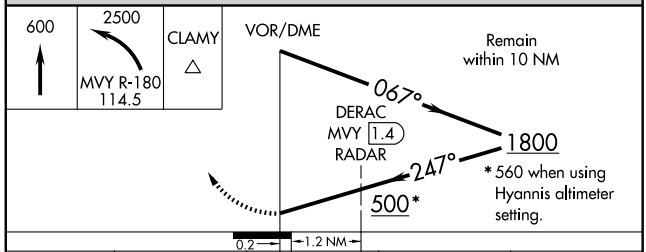
If local altimeter setting not received, use Hyannis altimeter setting and increase all MDAs 60 feet.
For inoperative MALSR, increase DERAC fix minimums Cat D visibility to RVR 6000.

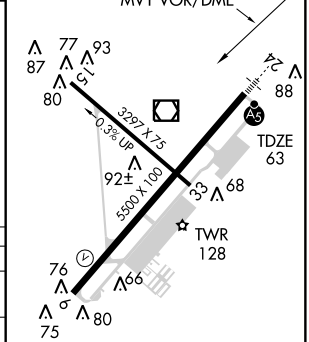
MALSR

MISSED APPROACH: Climb to 600 then climbing left turn to 2500 via MVY VOR/DME R-180 to CLAMY Int and hold.

ATIS	CAPE APP CON ★	VINEYARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.25	119.7	121.4 L (CTAF)	121.8	121.8 119.7 (Tower closed)	122.95







CATEGORY	A	B	C	D
S-24	500/24 437 (500-½)		500/40 437 (500-¾)	500/50 437 (500-1)
CIRCLING	500-1 432 (500-1)	520-1 452 (500-1)	520-1½ 452 (500-1½)	620-2 552 (600-2)
DERAC FIX MINIMUMS				
S-24	440/24 377 (400-½)			440/50 377 (400-1)
CIRCLING	460-1 392 (400-1)	520-1 452 (500-1)	520-1½ 452 (500-1½)	620-2 552 (600-2)

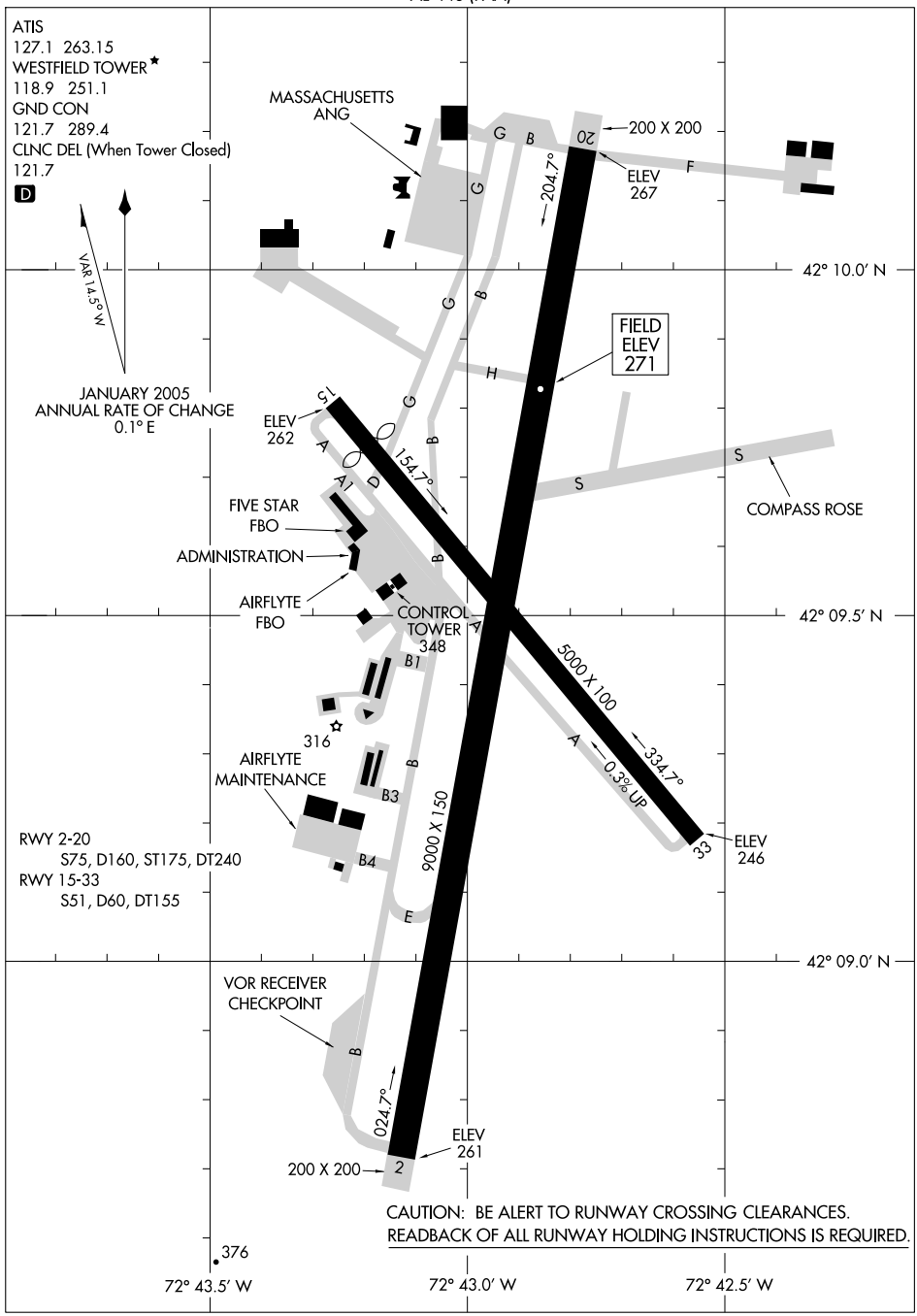
HIRL Rwy 6-24 L
MIRL Rwy 15-33 L
REIL Rwys 6 and 33 L

NE-1. 17 DEC 2009 to 14 JAN 2010

AIRPORT DIAGRAM

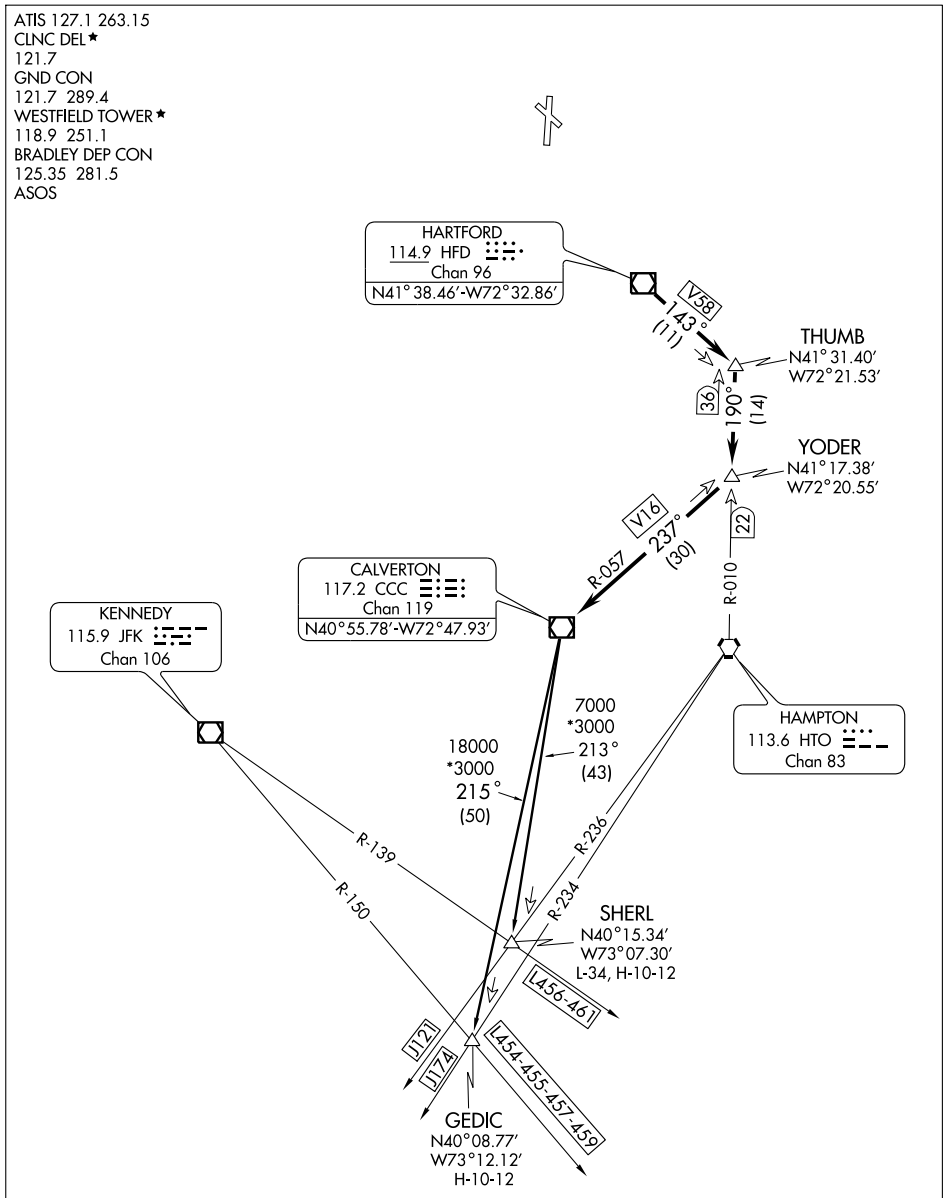
AL-446 (FAA)

WESTFIELD/BARNES MUNI (BAF)
WESTFIELD/SPRINGFIELD, MASSACHUSETTS



COASTAL TWO DEPARTURE (HI)

ATIS 127.1 263.15
CLNC DEL★
121.7
GND CON
121.7 289.4
WESTFIELD TOWER★
118.9 251.1
BRADLEY DEP CON
125.35 281.5
ASOS



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

T

DEPARTURE ROUTE DESCRIPTION

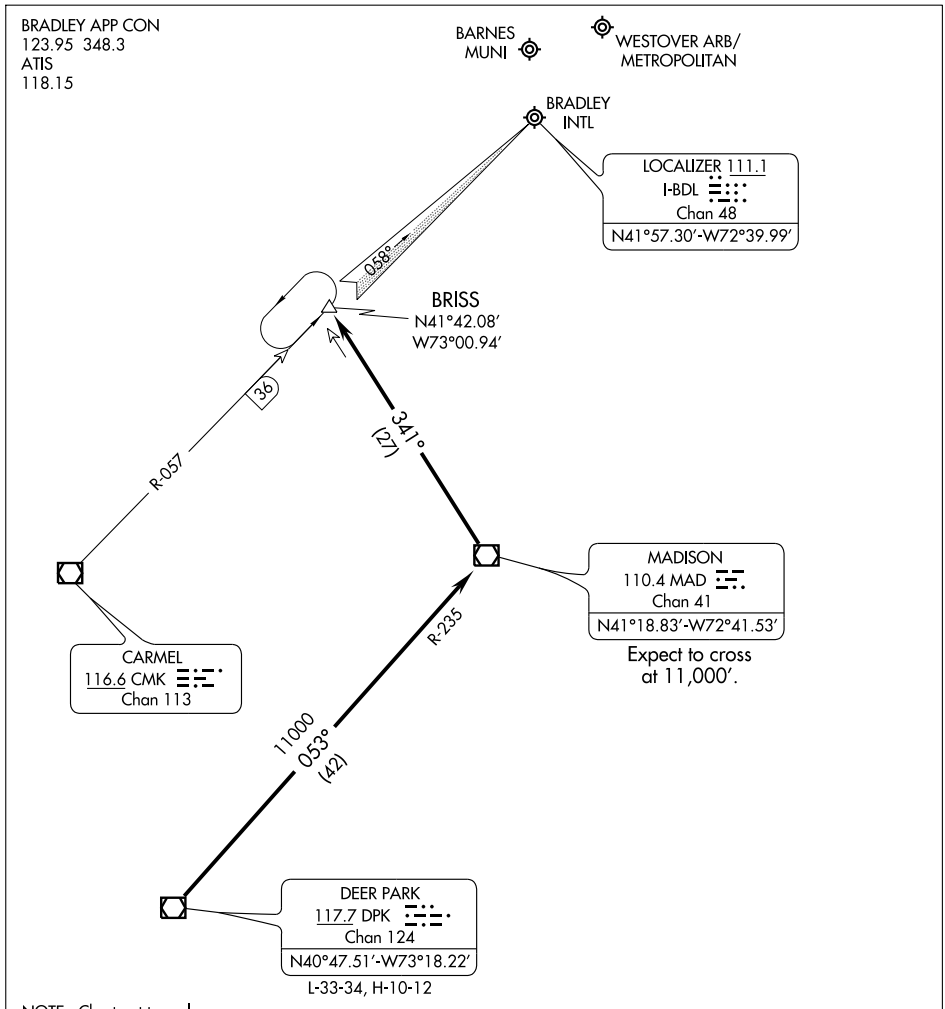
TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to HFD VOR/DME. Thence. . . .
. . . . From over HFD VOR/DME proceed via the HFD R-143 to THUMB INT, then proceed via the HTO R-010 to YODER INT, then via the CCC R-057 to CCC VOR/DME. Then via (transition) or (assigned route). Expect clearance to requested flight level ten (10) minutes after departure.
GEDIC TRANSITION (CSTL2.GEDIC): From over CCC VOR/DME via CCC R-215 to GEDIC INT.
SHERL TRANSITION (CSTL2.SHERL): From over CCC VOR/DME via CCC R-213 to SHERL INT.

(DPK.DPK2) 07298

ST-460 (FAA)

DEER PARK TWO ARRIVAL

WINDSOR LOCKS, CONNECTICUT



NOTE: Chart not to scale.

From over DPK VORTAC via DPK R-053 and MAD R-235 to MAD VOR/DME, thence from MAD VOR/DME via MAD R-341 to BRISS INT. Expect radar vectors to final approach course prior to BRISS INT when landing other than Bradley Runway 6.

APP CRS	Rwy ldg	9000
026°	TDZE	265
	Apt Elev	271

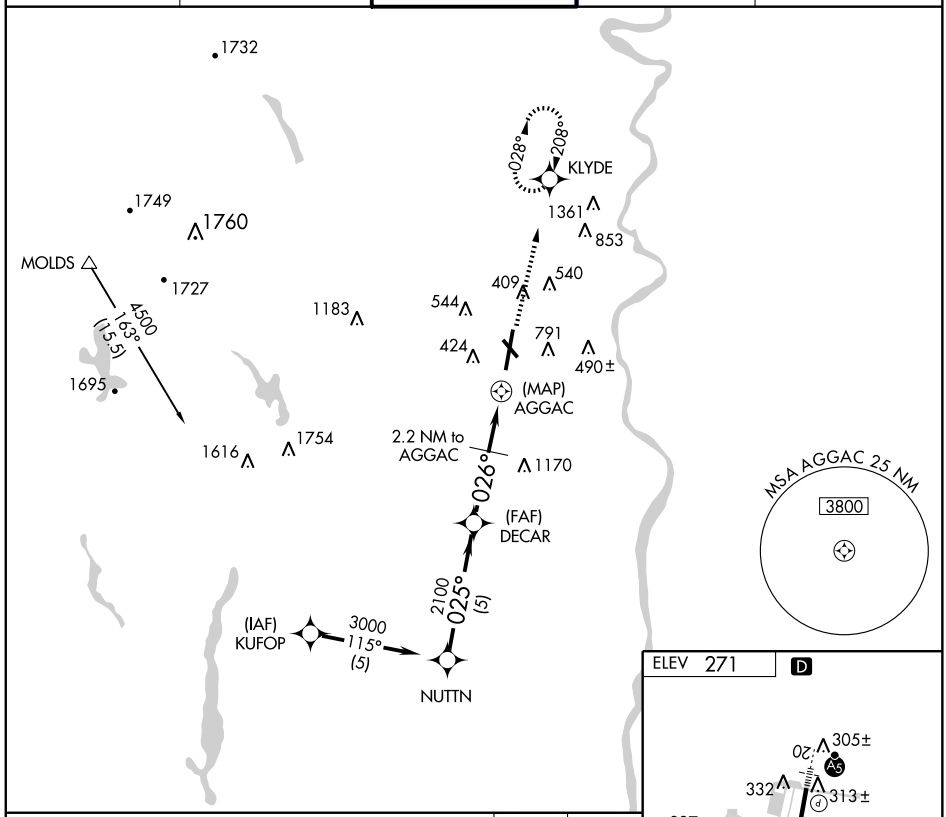
GPS RWY 2

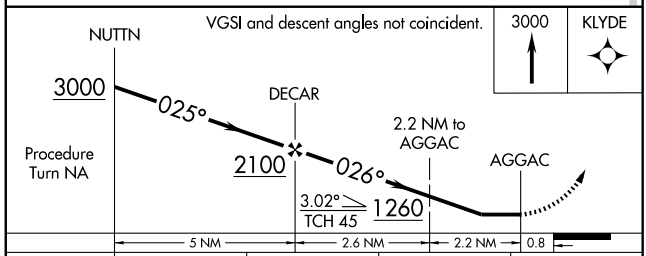
WESTFIELD/BARNES MUNI (BAF)

NA

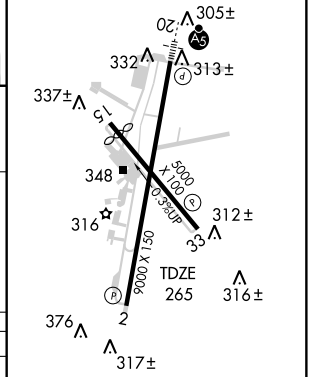
MISSED APPROACH: Climb to 3000 direct KLYDE WP and hold.

ATIS	BRADLEY APP CON	WESTFIELD TOWER*	GND CON	CLNC DEL*
127.1 263.15	125.35 281.5	118.9 (CTAF) L 251.1	121.7 289.4	121.7





CATEGORY	A	B	C	D
S-2	920-1 655 (700-1)		920-1¾ 655 (700-1¾)	920-2 655 (700-2)
CIRCLING	1160-1¼ 889 (900-1¼)		1160-2¾ 889 (900-2¾)	1160-3 889 (900-3)



MIRL Rwy 15-33 L
HIRL Rwy 2-20 L

NE-1. 17 DEC 2009 to 14 JAN 2010

HI-ILS or LOC RWY 20

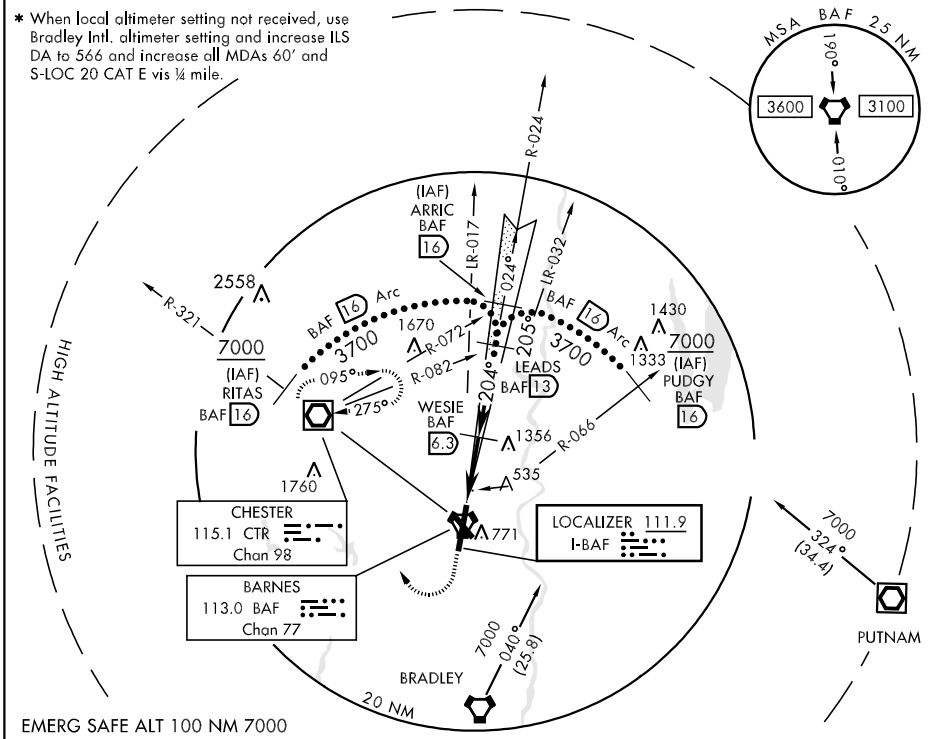
LOC I-BAF 111.9	APCH CRS 204°	Rwy ldg 9000 TDZE 271 Arpt Elev 271	JAL-446 [USAF]	WESTFIELD/BARNES MUNI (KBAF)

MALSR

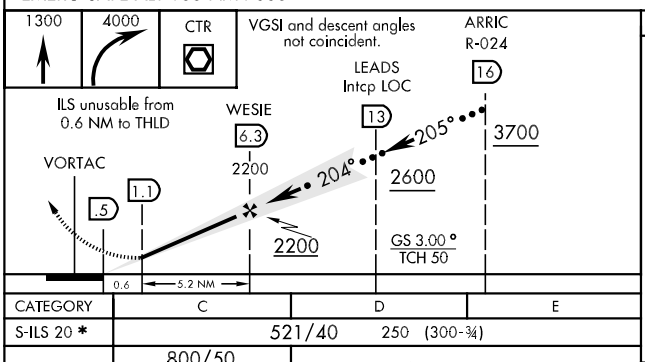
MISSED APPROACH: Climb to 1300, then climbing right turn to 4000 direct CTR VOR/DME and hold. (TACAN acft climb to 1300, then climbing right turn to 4000 via hdg 010° and BAF VORTAC R-321 to RITAS and hold.)

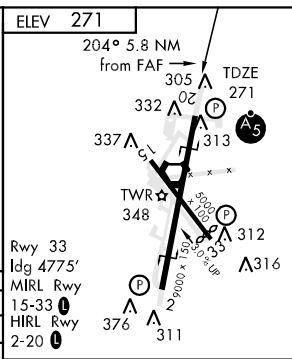
ATIS	BRADLEY APP CON	WESTFIELD TOWER ★	GND CON
263.15	125.35 281.5	118.9 (CTAF) L 251.1	121.7 289.4

* When local altimeter setting not received, use Bradley Intl. altimeter setting and increase ILS DA to 566 and increase all MDAs 60′ and S-LOC 20 CAT E vis ¼ mile.



EMERG SAFE ALT 100 NM 7000





CATEGORY	C	D	E
S-ILS 20 *	521/40 250 (300-¾)		
S-LOC 20 *	800/50 529 (600-1)	800/60 529 (600-1¼)	
CIRCLING	1160-2¾ 889 (900-2¾)	1160-3 889 (900-3)	1500-3 1229 (1300-3)

FAF to MAP 5.2 NM					
Knots	120	140	160	180	200
Min:Sec	2:36	2:14	1:57	1:44	1:34

HI-TACAN RWY 20

VORTAC BAF 113.0 Chan 77	APCH CRS 208°	Rwy ldg 9000 TDZE 271 Arpt Elev 271

JAL-446 [USAF]

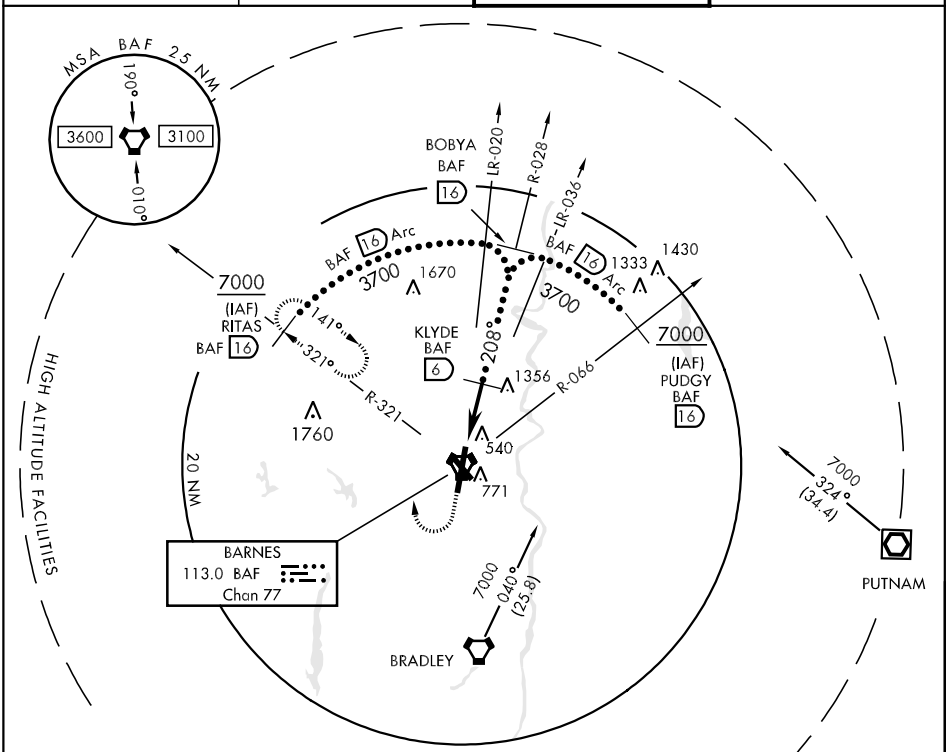
WESTFIELD/BARNES MUNI (KBAF)

* When local altimeter setting not received, use Bradley Intl. altimeter setting and increase all MDAs 60′ and S-20 CAT E vis ¼ mile.

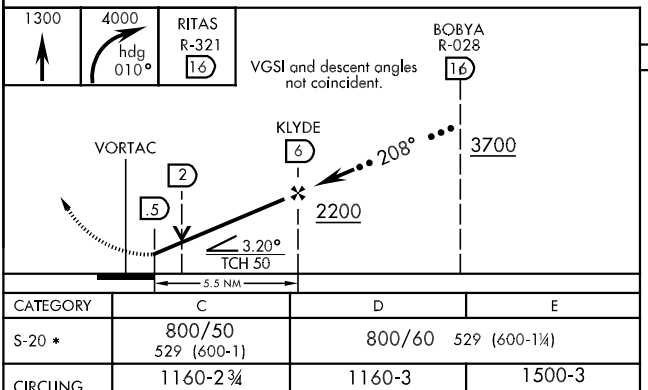
MALSR A5

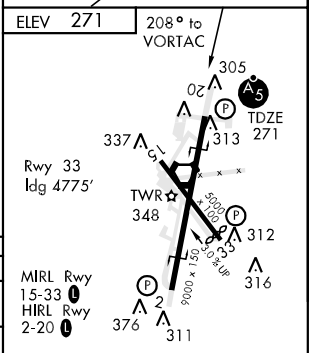
MISSED APPROACH: Climb to 1300, then climbing right turn to 4000 via hdg 010° and BAF VORTAC R-321 to RITAS and hold.

ATIS	BRADLEY APP CON	WESTFIELD TOWER ★	GND CON
263.15	125.35 281.5	118.9 (CTAF) L 251.1	121.7 289.4



EMERG SAFE ALT 100 NM 7000





CATEGORY	C	D	E
S-20 *	800/50 529 (600-1)	800/60 529 (600-1¼)	
CIRCLING	1160-2¾ 889 (900-2¾)	1160-3 889 (900-3)	1500-3 1229 (1300-3)

LOC I-BAF	APP CRS	Rwy ldg	8919
111.9	204°	TDZE	271
		Apt Elev	271

ILS or LOC RWY 20

WESTFIELD / BARNES MUNI (BAF)

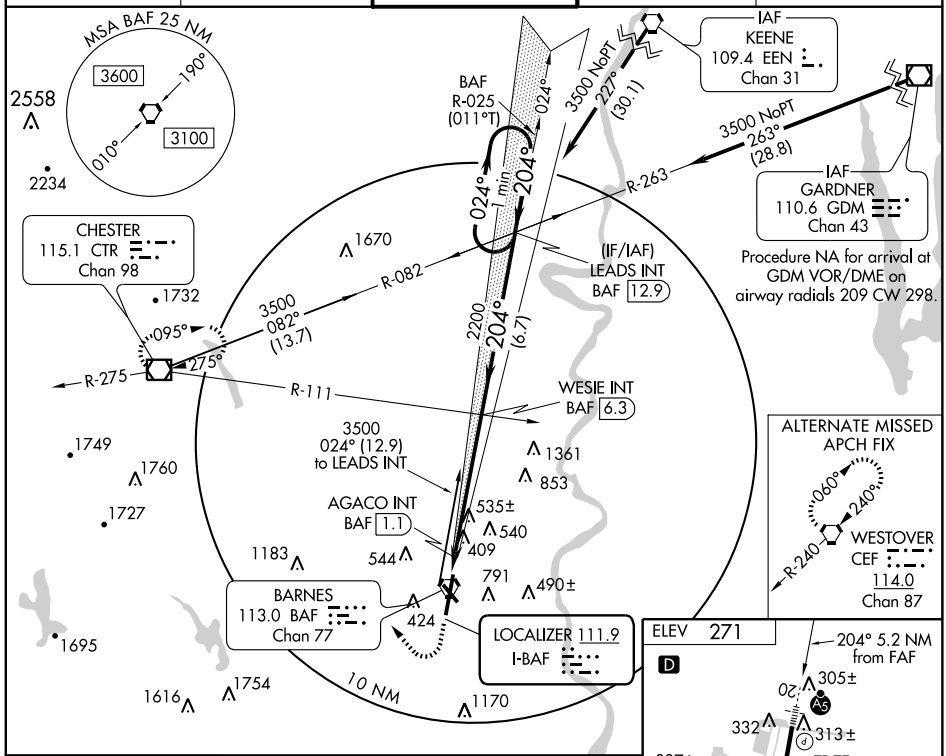
If local altimeter setting not received, use Bradley Intl altimeter setting and increase ILS DA to 566 and increase all MDAs 60 feet.

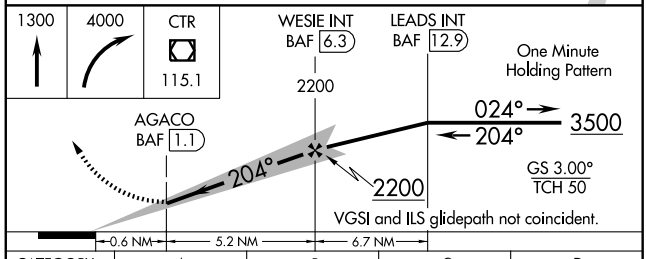
For inoperative MALSR, increase S-LOC 20 Cats A and B visibility to RVR 5000. Inoperative table does not apply to S-ILS 20. Visibiltiy reduction by helicopters NA.

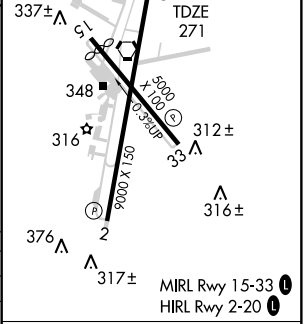
MALSR

MISSED APPROACH: Climb to 1300 then climbing right turn to 4000 direct CTR VOR/DME and hold, continue climb-in-hold to 4000.

ATIS	BRADLEY APP CON	WESTFIELD TOWER★	GND CON	CLNC DEL ★
127.1 263.15	125.35 281.5	118.9 (CTAF) L 251.1	121.7 289.4	121.7







CATEGORY	A	B	C	D
S-ILS 20	521/40 250 (300-¾)			
S-LOC 20	800/40 529 (600-¾)		800/50 529 (600-1)	800/60 529 (600-1¼)
CIRCLING	1160-1¼ 889 (900-1¼)		1160-2¾ 889 (900-2¾)	1160-3 889 (900-3)

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS CH 86405 W20A	APP CRS 204°	Rwy ldg 8919 TDZE 271 Apt Elev 271

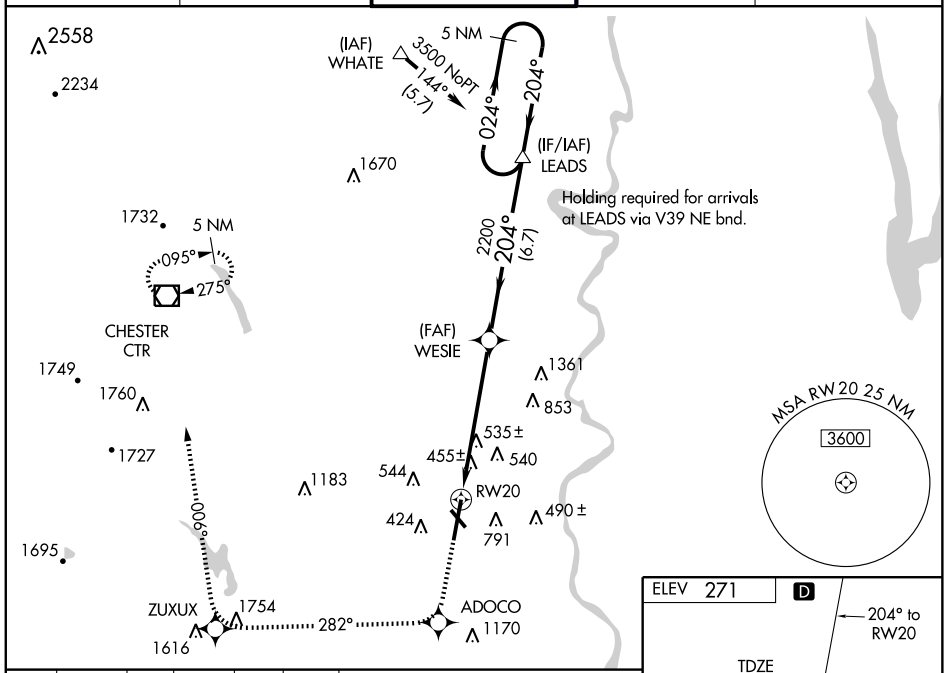
RNAV (GPS) RWY 20
WESTFIELD/BARNES MUNI (BAF)

If local altimeter setting not received, use Bradley Intl altimeter setting and increase LPV DA to 665, LNAV/VNAV DA to 973, and all MDAs 60 feet. VDP NA when using Bradley Intl altimeter setting. Baro-VNAV NA when using Bradley Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 15°C (5°F) or above 48°C (118°F). For inoperative MALSR, increase LPV visibility to RVR 6000 all Cats, increase LNAV Cats A and B visibility to RVR 5000. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MALSR A5

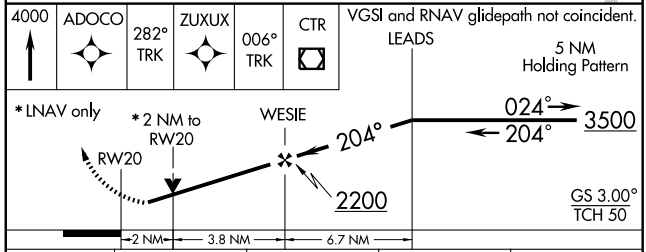
MISSED APPROACH: Climb to 4000 direct ADOCO and via 282° track to ZUXUX and via 006° track to CTR VOR/DME and hold.

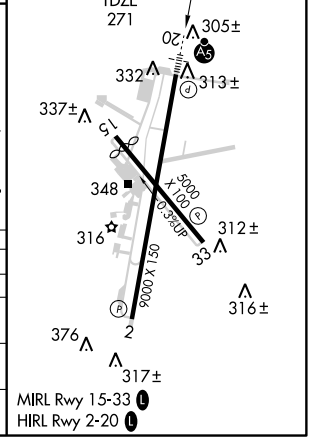
ATIS	BRADLEY APP CON	WESTFIELD TOWER ★	GND CON	CLNC DEL ★
127.1 263.15	125.35 281.5	118.9 (CTAF) L 251.1	121.7 289.4	121.7



4000	ADOCO	282° TRK	ZUXUX	006° TRK	CTR

VGSI and RNAV glidepath not coincident.



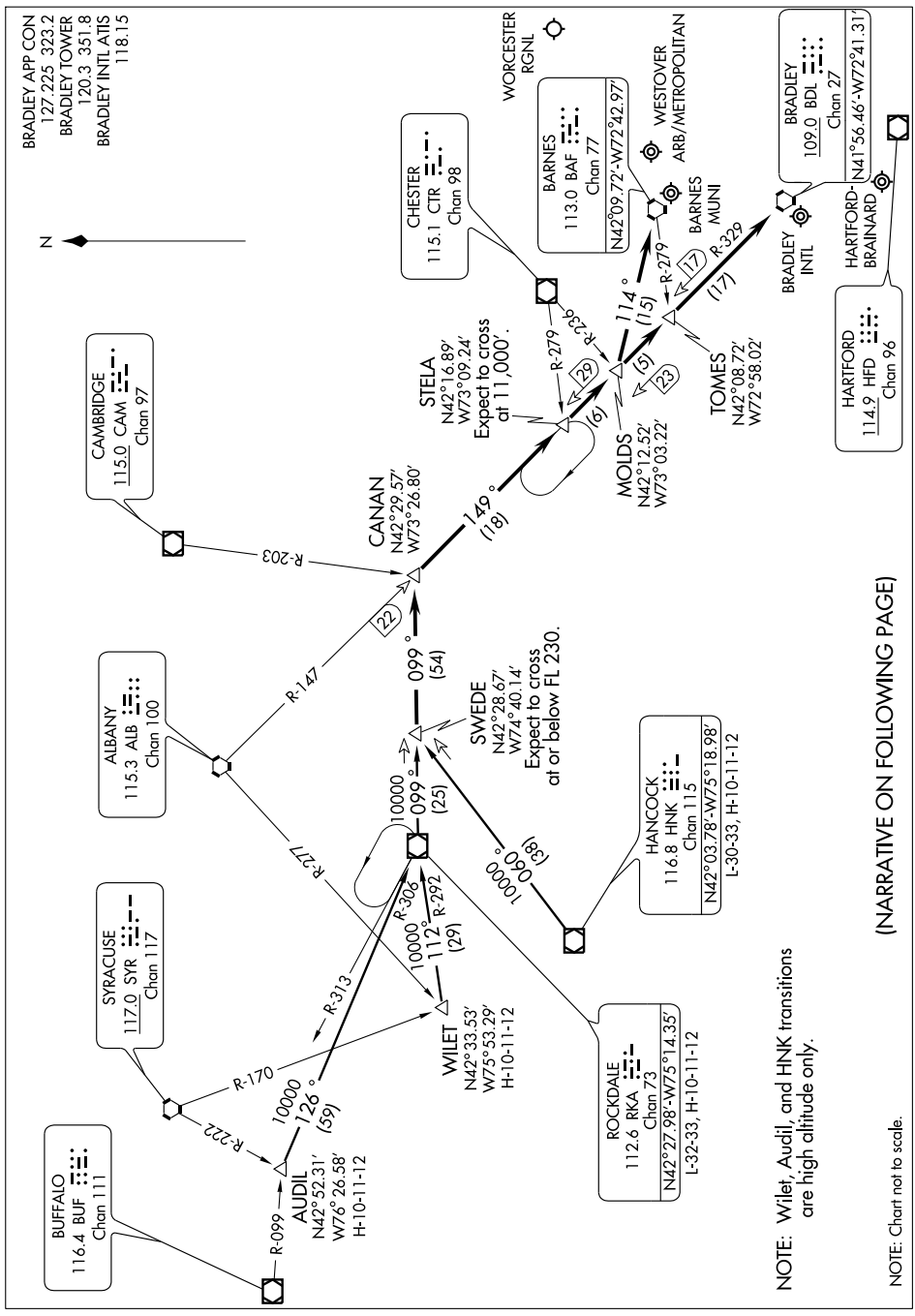


CATEGORY	A	B	C	D
LPV DA	620/40 349 (400-¾)			
LNAV/VNAV DA	928-1¾ 657 (700-1¾)			
LNAV MDA	940/40 669 (700-¾)		940/60 669 (700-1¼)	940-1½ 669 (700-1½)
CIRCLING	1160-1¼ 889 (900-1¼)		1160-2¾ 889 (900-2¾)	1160-3 889 (900-3)

NE-1. 17 DEC 2009 to 14 JAN 2010

SWEDE ONE ARRIVAL (SWEDE.SWEDE1)

WINDSOR LOCKS, CONNECTICUT



SWEDE ONE ARRIVAL (SWEDE.SWEDE1)

WINDSOR LOCKS, CONNECTICUT

ARRIVAL DESCRIPTION

AUDIL TRANSITION (AUDIL.SWEDE1): From over AUDIL INT via RKA R-306 to RKA VOR/DME; then via RKA R-099 to SWEDE INT. Thence. . . .
HANCOCK TRANSITION (HNK.SWEDE1): From over HNK VOR/DME via HNK R-060 to SWEDE INT. Thence. . . .
ROCKDALE TRANSITION (RKA.SWEDE1): From over RKA VOR/DME via RKA R-099 to SWEDE INT. Thence. . . .
WILET TRANSITION (WILET.SWEDE1): From over WILET INT via RKA R-292 to RKA VOR/DME; then via RKA R-099 TO SWEDE INT. Thence. . . .
ARRIVALS FOR BRADLEY INTL and HARTFORD-BRAINARD
. . . . From over SWEDE INT via RKA R-099 to CANAN INT. Then via BDL R-329 to BDL VORTAC. Expect radar vectors to final approach course.
ARRIVALS FOR BARNES MUNI, WESTOVER ARB/METROPOLITAN and WORCESTER RGNL
. . . . From over SWEDE INT via RKA R-099 to CANAN INT. Then via BDL R-329 to MOLDS INT. Then direct to BAF VORTAC. Expect radar vectors to final approach course.

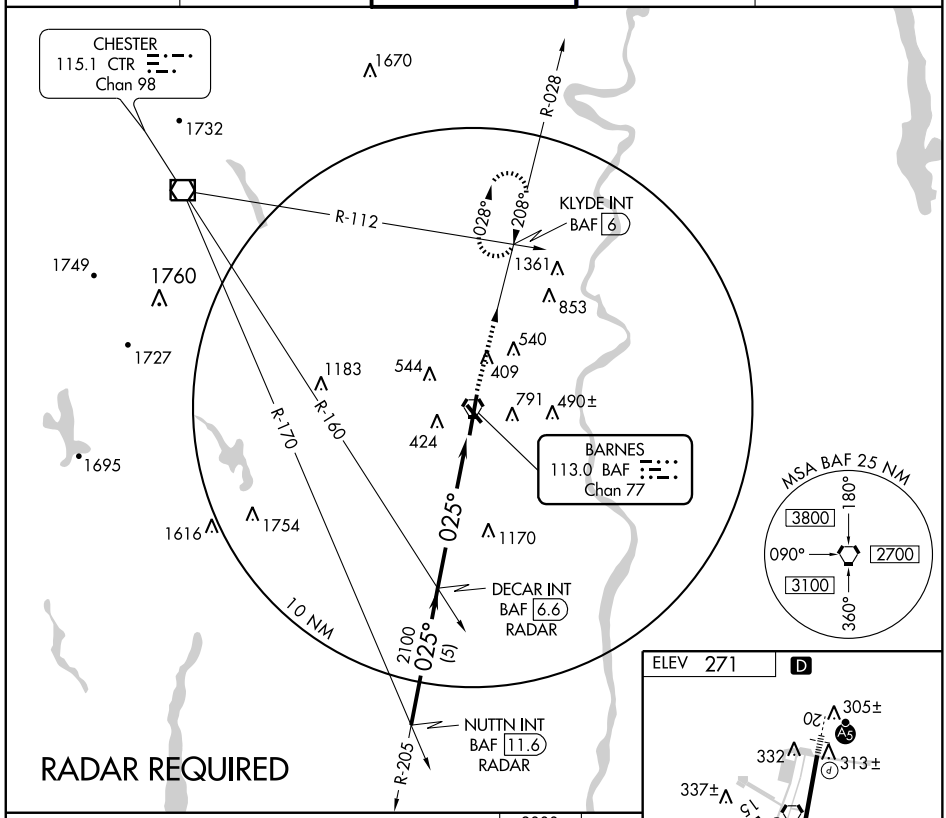
BAF VORTAC 113.0 Chan 77	APP CRS 025°	Rwy ldg 9000 TDZE 265 Apt Elev 271

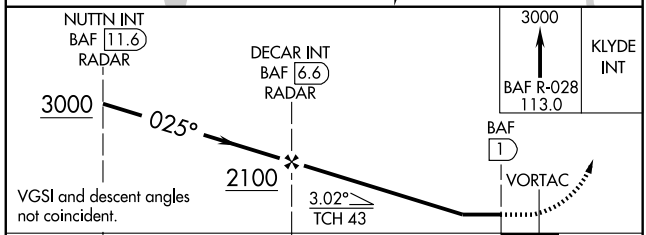
VOR or TACAN RWY 2

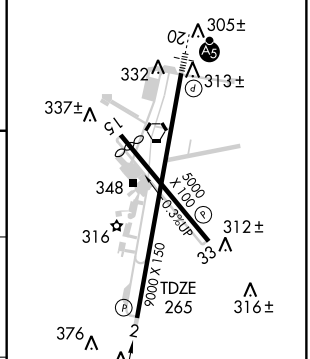
WESTFIELD/BARNES MUNI (BAF)

MISSED APPROACH: Climb to 3000 via the BAF VORTAC R-028 to KLYDE Int and hold.

ATIS	BRADLEY APP CON	WESTFIELD TOWER★	GND CON	CLNC DEL ★
127.1 263.15	125.35 281.5	118.9 (CTAF) L 251.1	121.7 289.4	121.7







CATEGORY	A	B	C	D	E
S-2	780-1 515 (600-1)		780-1½ 515 (600-1½)	780-1¾ 515 (600-1¾)	780-1¾ 515 (600-1¾)
CIRCLING	1160-1¼ 889 (900-1¼)		1160-2¾ 889 (900-2¾)	1160-3 889 (900-3)	

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

NE-1. 17 DEC 2009 to 14 JAN 2010

BAF VORTAC	APP CRS	Rwy ldg 8919
113.0	208°	TDZE 271
Chan 77		Apt Elev 271

VOR RWY 20

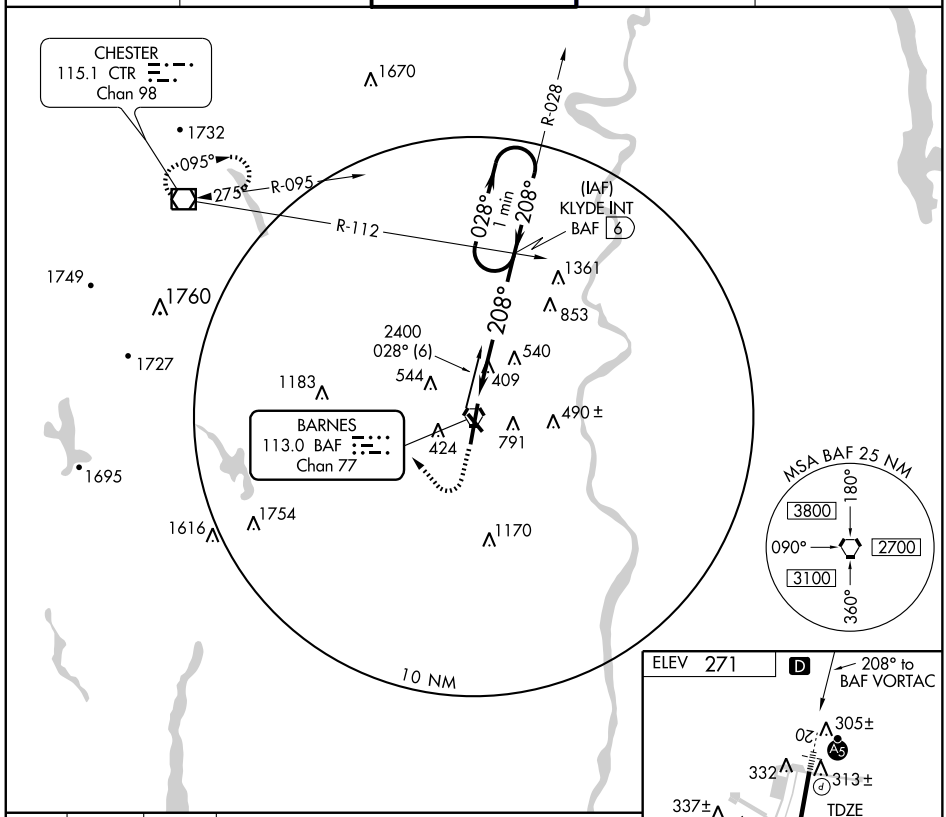
WESTFIELD/ BARNES MUNI (BAF)

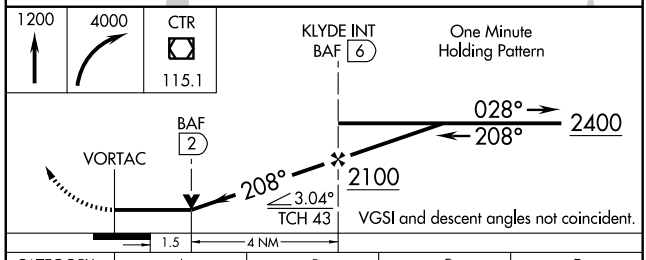
Visibility reduction by helicopters NA.
For inoperative MALSR, increase Cat A/B visibility to RVR 5000.

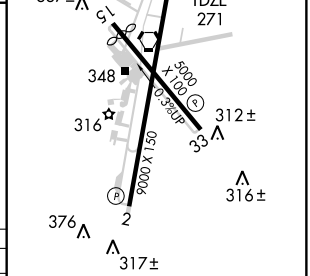
MALSR

MISSED APPROACH: Climb to 1200, then climbing right turn to 4000 direct CTR VOR/DME and hold.

ATIS	BRADLEY APP CON	WESTFIELD TOWER*	GND CON	CLNC DEL*
127.1 263.15	125.35 281.5	118.9 (CTAF) L 251.1	121.7 289.4	121.7



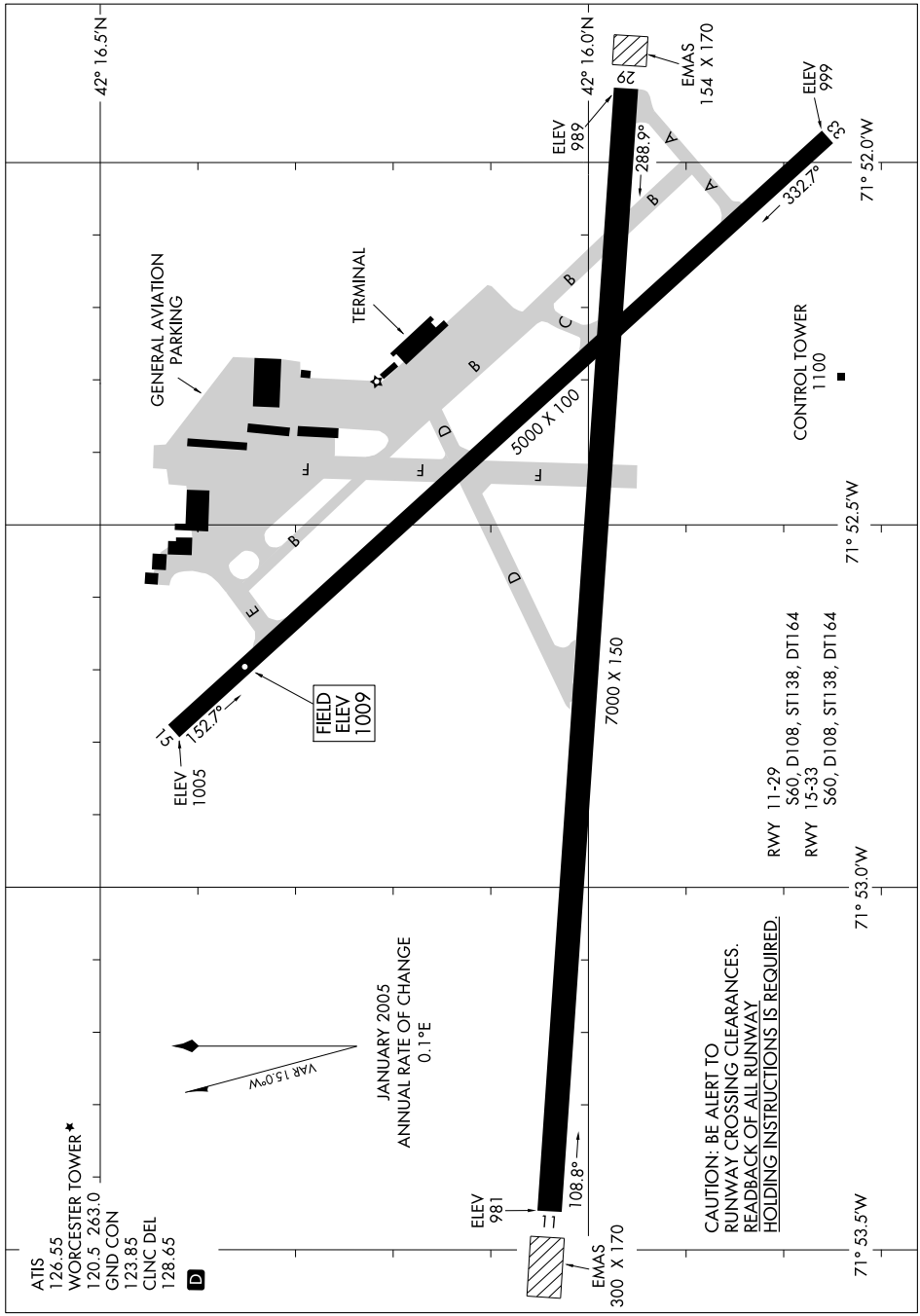




MIRL Rwy 15-33 L
HIRL Rwy 2-20 L

CATEGORY	A	B	C	D
S-20	940/40	669 (700-¾)	940/60 669 (700-1¼)	940-1½ 669 (700-1½)
CIRCLING	1160-1¼	889 (900-1¼)	1160-2¾ 889 (900-2¾)	1160-3 889 (900-3)

NE-1. 17 DEC 2009 to 14 JAN 2010


42° 16.5'N
42° 16.0'N
71° 52.0'W
71° 52.5'W
71° 53.0'W
71° 53.5'W
GENERAL AVIATION PARKING
TERMINAL
CONTROL TOWER 1100
5000 X 100
7000 X 150
152.7°
288.9°
332.7°
108.8°
FIELD ELEV 1009
ELEV 1005
ELEV 989
ELEV 999
ELEV 981
EMAS 154 X 170
EMAS 300 X 170
5
29
23
11
A
B
C
D
E
F
RWY 11-29 S60, D108, ST138, DT164
RWY 15-33 S60, D108, ST138, DT164
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°E
VAR 15.0°W
CAUTION: BE ALERT TO
RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY
HOLDING INSTRUCTIONS IS REQUIRED.
ATIS
126.55
WORCESTER TOWER*
120.5 263.0
GND CON
123.85
CLNC DEL
128.65
D

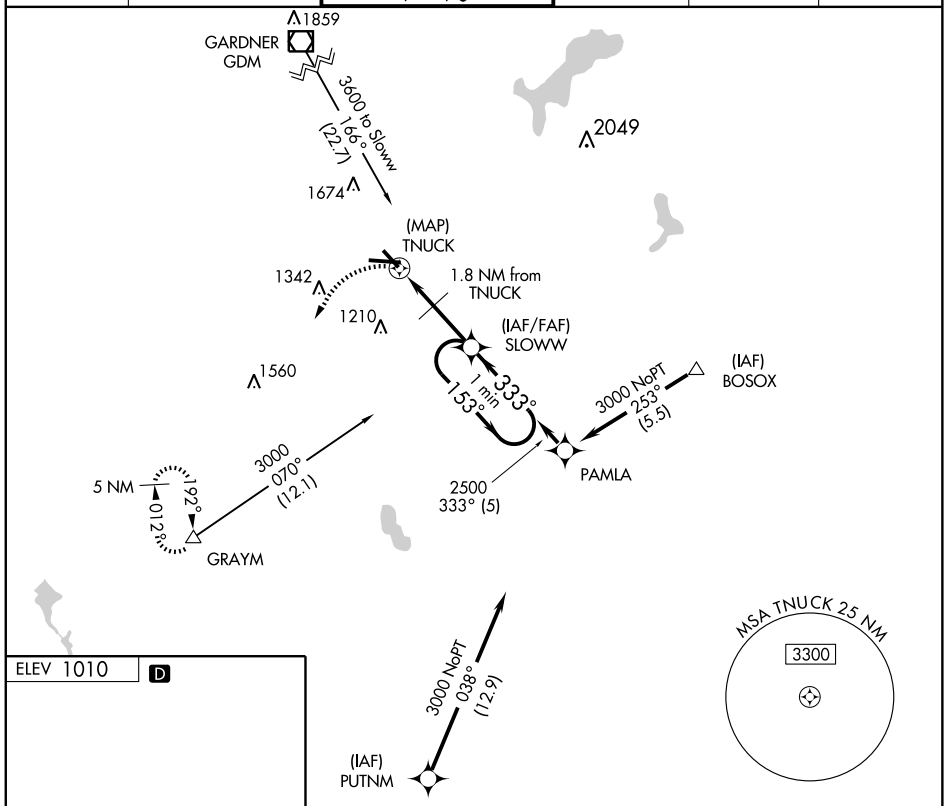
APP CRS	Rwy ldg	5000
333°	TDZE	997
	Apt Elev	1010

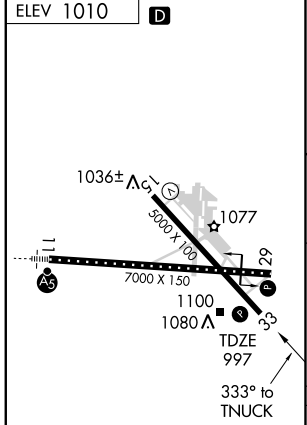
GPS RWY 33
WORCESTER RGNL (ORH)

NA

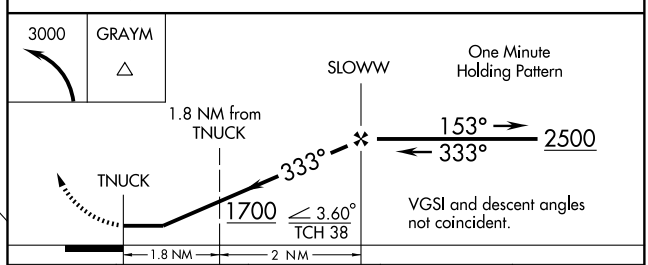
MISSED APPROACH: Climbing left turn to 3000 direct GRAYM WP and hold.

ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	122.95





TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L



CATEGORY	A	B	C	D
S-33	1340-1 343 (400-1)			1340-1¼ 343 (400-1¼)
CIRCLING	1540-1 530 (600-1)	1640-1 630 (700-1)	1720-2 710 (800-2)	1960-3 950 (1000-3)

NE-1. 17 DEC 2009 to 14 JAN 2010

LOC/DME I-RSR	APP CRS	Rwy ldg	7000
110.9	109°	TDZE	981
Chan 46		Apt Elev	1010

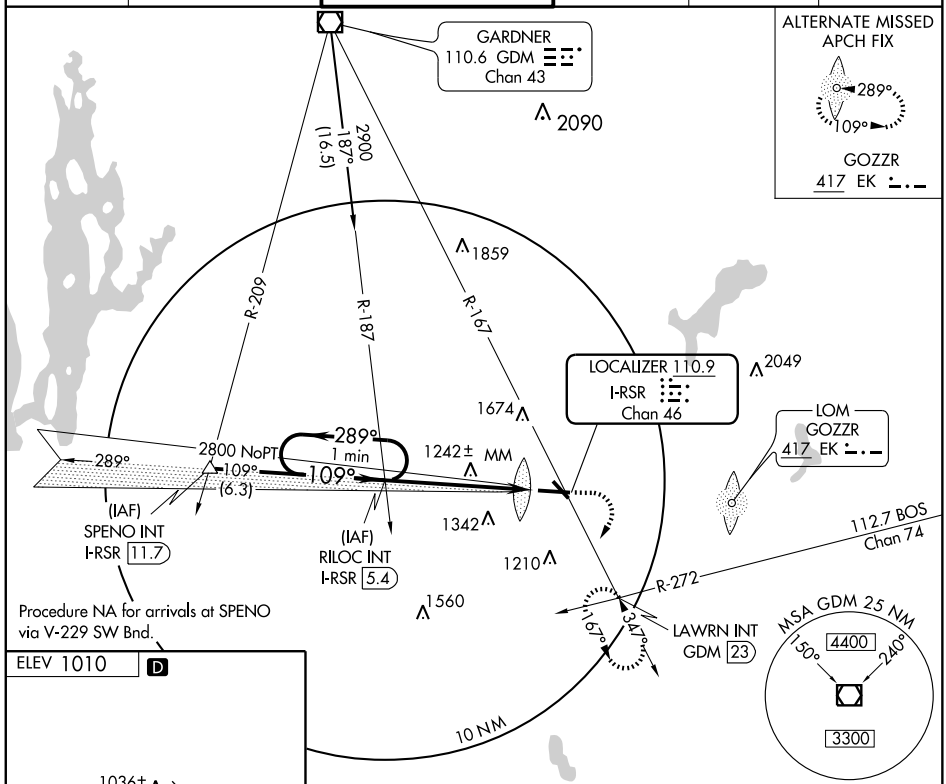
ILS or LOC RWY 11
WORCESTER RGNL (ORH)

▼ If local altimeter setting not received, use Laurence G. Hanscom Fld altimeter setting and increase all DAs/MDAs 200'.
▲ VDP NA when using Laurence G. Hanscom Fld altimeter setting.

MALSR

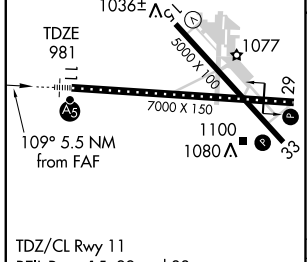
MISSED APPROACH: Climb to 1400 then climbing right turn to 3000 via GDM VOR/DME R-167 to LAWRN Int/GDM 23 DME and hold.

ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	112.95



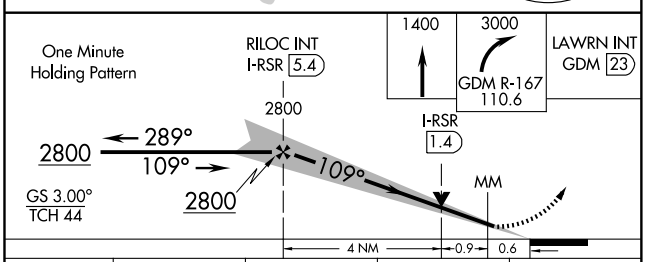
Procedure NA for arrivals at SPENO via V-229 SW Bnd.

ELEV 1010 D



TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L

FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50



CATEGORY	A	B	C	D
S-ILS 11	1181/18 200 (200-½)			
S-LOC 11	1500/24 519 (500-½)		1500/50 519 (500-1)	1500/60 519 (500-1¼)
CIRCLING	1540-1 530 (600-1)	1640-1 630 (700-1)	1720-2 710 (800-2)	2000-3 990 (1000-3)

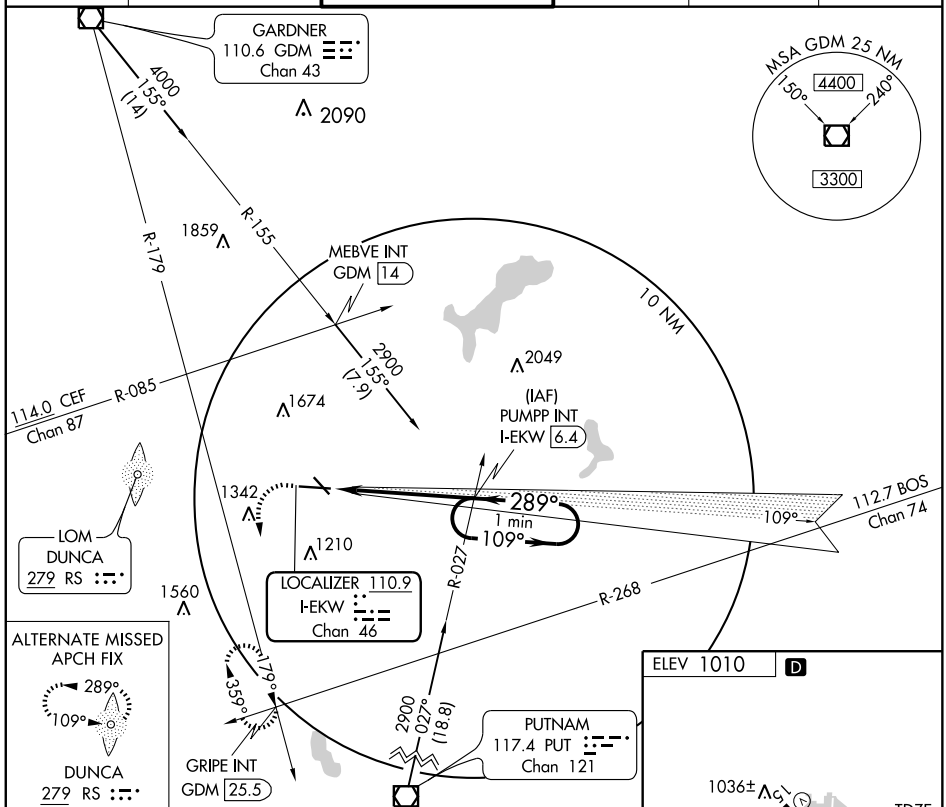
LOC/DME I-EKW	APP CRS	Rwy ldg	7000
110.9	289°	TDZE	991
Chan 46		Apt Elev	1010

ILS or LOC RWY 29
WORCESTER RGNL (ORH)

Autopilot coupled approach NA below 1226 feet. DME REQUIRED. If local altimeter setting not received, use Laurence G. Hanscom Fld altimeter setting and increase all DAs/MDAs 200'.

MISSED APPROACH: Climb to 1600 then climbing left turn to 3000 via heading 240° and GDM R-179 to GRIPE Int/GDM 25.5 DME and hold.

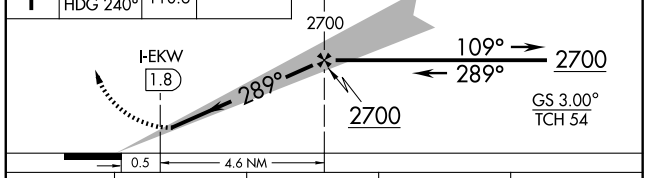
ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	122.95



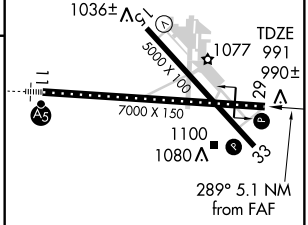
NE-1. 17 DEC 2009 to 14 JAN 2010

1600	3000	GDM	GRIPE INT	PUMPP INT
	HDG 240°	R-179	GDM 25.5	I-EKW 6.4
		110.6		

One Minute Holding Pattern



ELEV 1010 D



TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L

CATEGORY	A	B	C	D
S-ILS 29	1191/40 200 (200-¾)			
S-LOC 29	1260/50 269 (300-1)			
CIRCLING	1540-1 530 (600-1)	1640-1 630 (700-1)	1720-2 710 (800-2)	2000-3 990 (1000-3)

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

LOM RS	APP CRS	Rwy ldg	7000
279	109°	TDZE	981
		Apt Elev	1010

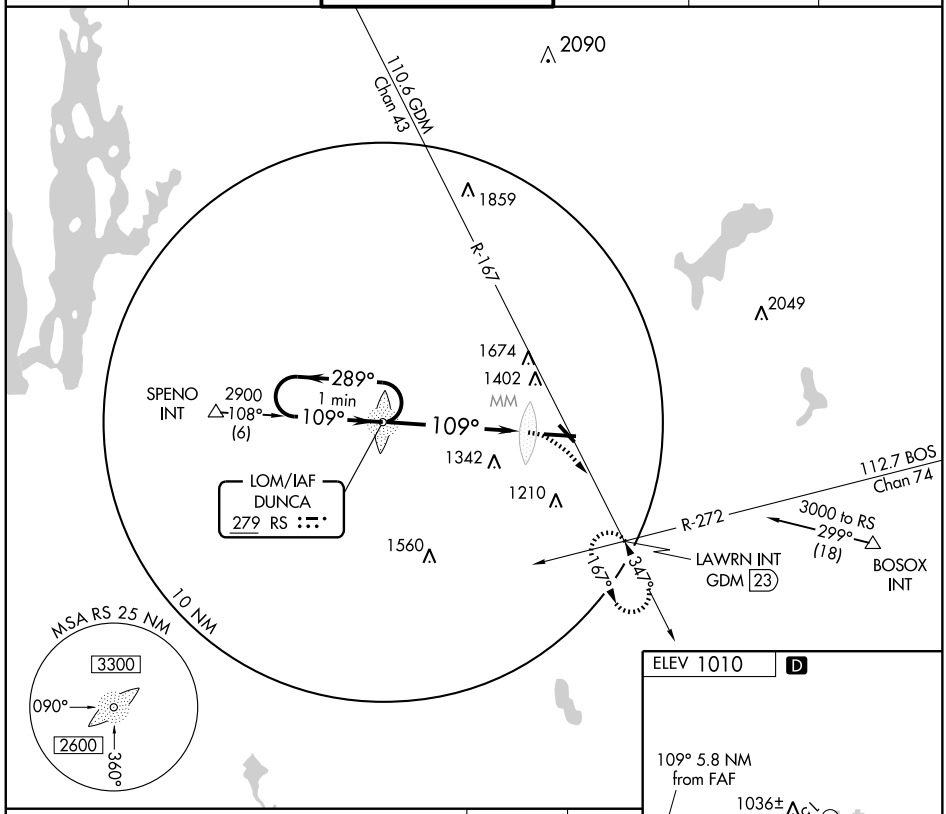
NDB RWY 11
WORCESTER RGNL (ORH)

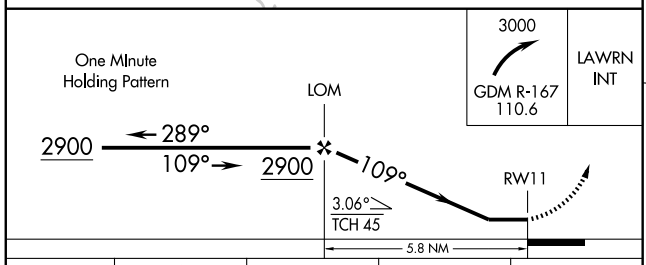
If local altimeter setting not received, use Laurence G. Hanscom Fld altimeter setting and increase all MDAs 200'.

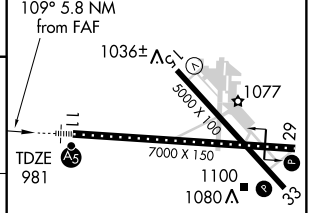
MALSR

MISSED APPROACH: Climbing right turn to 3000 via GDM VOR/DME R-167 to LAWRN Int/GDM 23 DME and hold.

ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	122.95







TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L

CATEGORY	A	B	C	D
S-11	1680/40	699 (700-¾)	1680-1½ 699 (700-1½)	1680-2 699 (700-2)
CIRCLING	1680-1	670 (700-1)	1720-2 710 (800-2)	2000-3 990 (1000-3)

FAF to MAP 5.8 NM

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

NE-1. 17 DEC 2009 to 14 JAN 2010

WAAS Ch 77999 W11A	APP CRS 109°	Rwy ldg 7000 TDZE 981 Apt Elev 1010

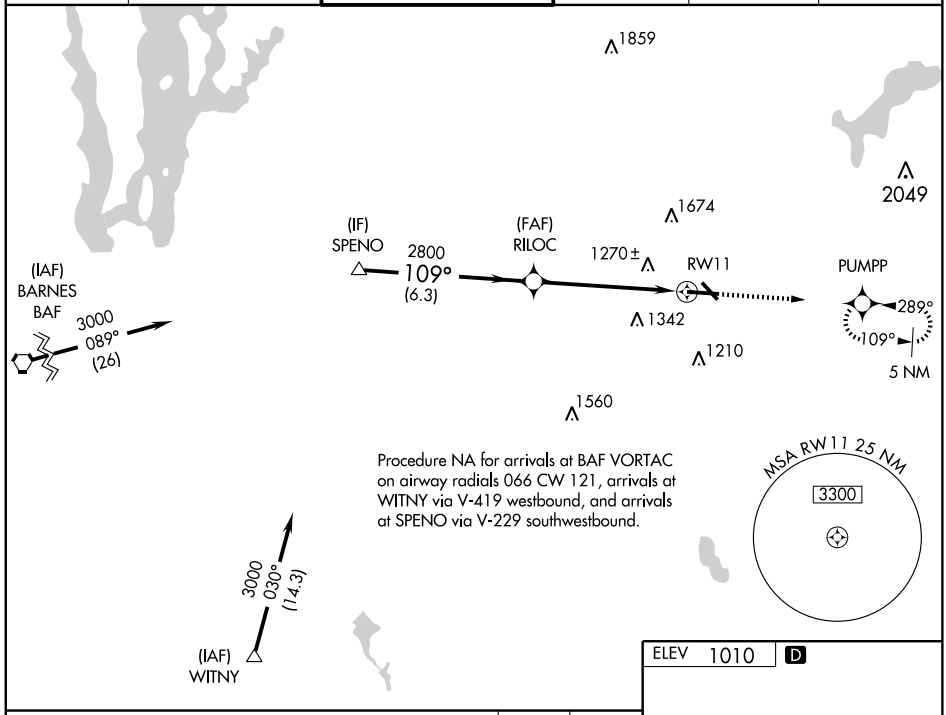
RNAV (GPS) RWY 11
WORCESTER RGNL (ORH)

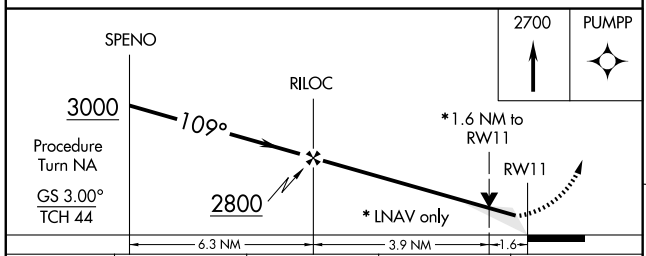
T DME/DME RNP -0.3 NA. For inoperative MALSR, increase LPV visibility all Cats to RVR 6000. If local altimeter setting not received, use Laurence G. Hanscom Fld altimeter setting and increase all DAs/MDAs 200'.
A
W VDP NA when using Laurence G. Hanscom Fld altimeter setting.

MALSR

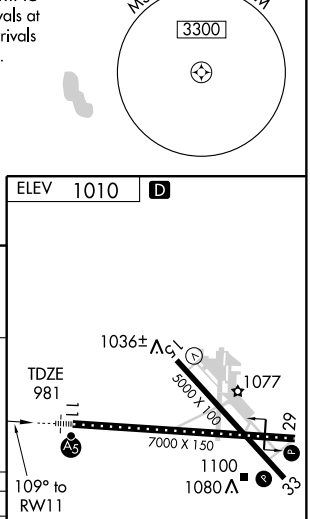
MISSED APPROACH: Climb to 2700 direct PUMPP and hold. When authorized by ATC, continue climb-in-hold to 3000.

ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	122.95





CATEGORY	A	B	C	D
LPV DA	1334/40 353 (400-¾)			
LNAV/VNAV DA	NA			
LNAV MDA	1520/24 539 (600-½)		1520/50 539 (600-1)	1520/60 539 (600-1¼)
CIRCLING	1540 - 1¼ 530 (600-1¼)	1640 - 1¼ 630 (700-1¼)	1720 - 2 710 (700-2)	2000 - 3 990 (1000-3)



TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L

NE-1. 17 DEC 2009 to 14 JAN 2010

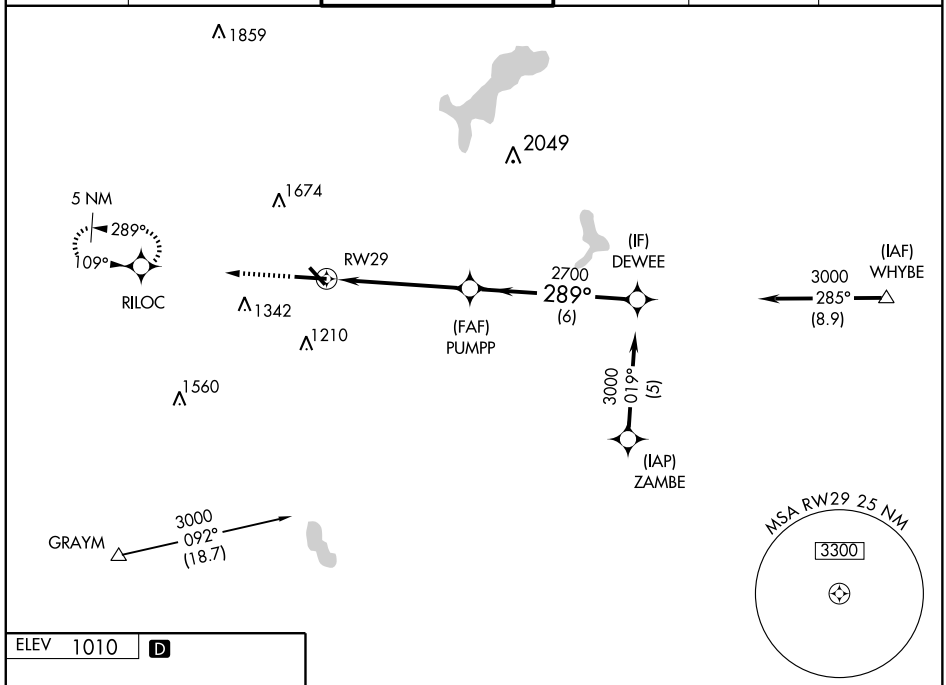
WAAS Ch 82299 W29A	APP CRS 289°	Rwy ldg 7000 TDZE 991 Apt Elev 1010

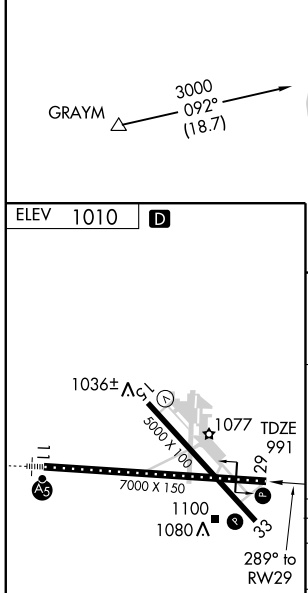
RNAV (GPS) RWY 29
WORCESTER RGNL (ORH)

DME/DME RNP -0.3 NA. Baro VNAV NA below -17°C (2°F). If local altimeter setting not received, use Laurence G. Hanscom Fld altimeter setting and increase all DAs/MDAs 200'. VDP and Baro-VNAV NA when using Laurence G. Hanscom Fld altimeter setting.

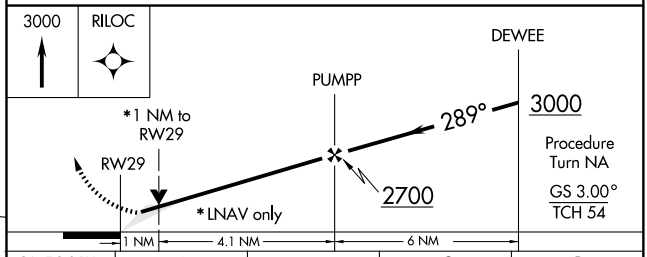
MISSED APPROACH: Climb to 3000 direct RILOC and hold, continue climb-in-hold to 3000.

ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	128.65





TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L

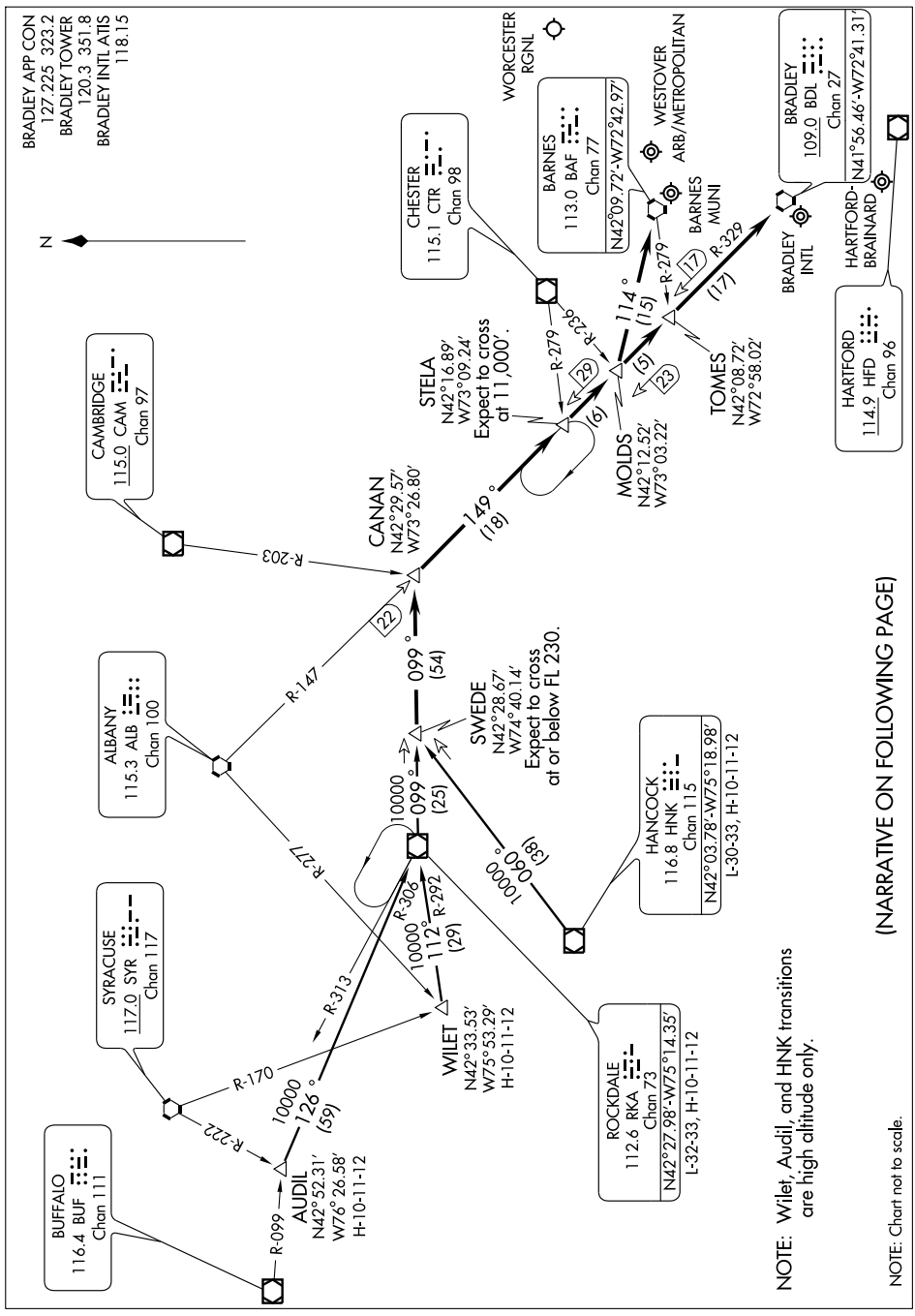


CATEGORY	A	B	C	D
LPV DA	1241/40 250 (300-¾)			
LNAV/VNAV DA	1361/60 370 (400-1¼)			
LNAV MDA	1360/50 369 (400-1)			1360/60 369 (400-1¼)
CIRCLING	1540 - 1¼ 530 (600-1¼)	1640 - 1¼ 630 (700-1¼)	1720 - 2 710 (700-2)	2000 - 3 990 (1000-3)

NE-1. 17 DEC 2009 to 14 JAN 2010

SWEDE ONE ARRIVAL (SWEDE.SWEDE1)

WINDSOR LOCKS, CONNECTICUT



SWEDE ONE ARRIVAL (SWEDE.SWEDE1)

WINDSOR LOCKS, CONNECTICUT

ARRIVAL DESCRIPTION

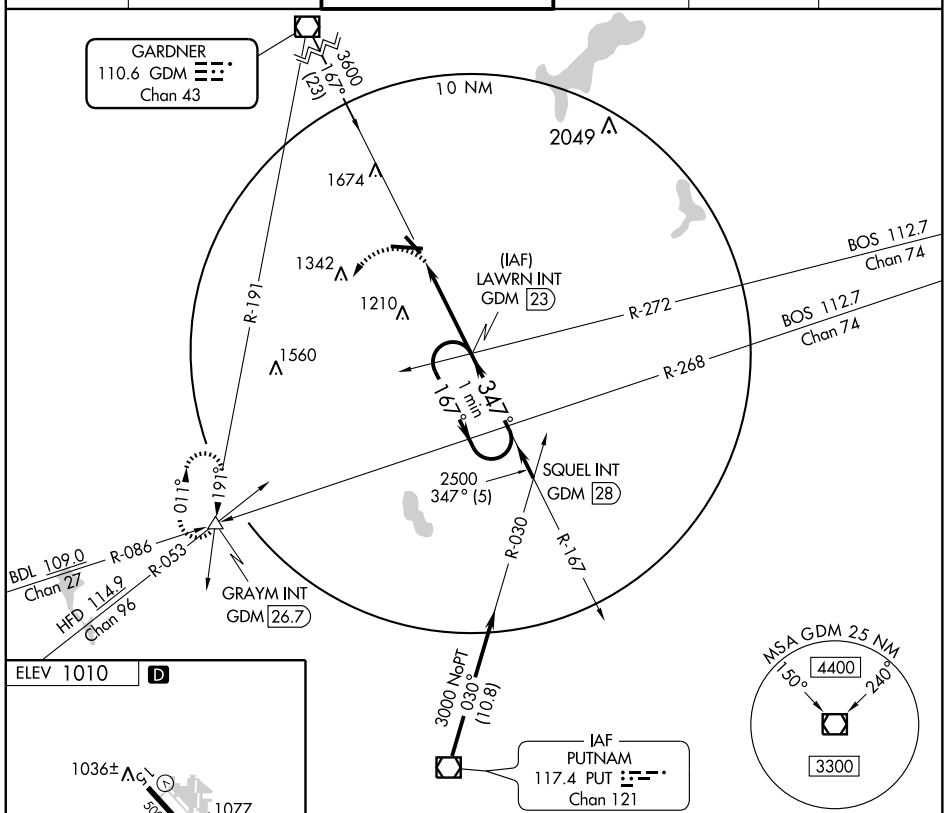
AUDIL TRANSITION (AUDIL.SWEDE1): From over AUDIL INT via RKA R-306 to RKA VOR/DME; then via RKA R-099 to SWEDE INT. Thence. . . .
HANCOCK TRANSITION (HNK.SWEDE1): From over HNK VOR/DME via HNK R-060 to SWEDE INT. Thence. . . .
ROCKDALE TRANSITION (RKA.SWEDE1): From over RKA VOR/DME via RKA R-099 to SWEDE INT. Thence. . . .
WILET TRANSITION (WILET.SWEDE1): From over WILET INT via RKA R-292 to RKA VOR/DME; then via RKA R-099 TO SWEDE INT. Thence. . . .
ARRIVALS FOR BRADLEY INTL and HARTFORD-BRAINARD
. . . . From over SWEDE INT via RKA R-099 to CANAN INT. Then via BDL R-329 to BDL VORTAC. Expect radar vectors to final approach course.
ARRIVALS FOR BARNES MUNI, WESTOVER ARB/METROPOLITAN and WORCESTER RGNL
. . . . From over SWEDE INT via RKA R-099 to CANAN INT. Then via BDL R-329 to MOLDS INT. Then direct to BAF VORTAC. Expect radar vectors to final approach course.

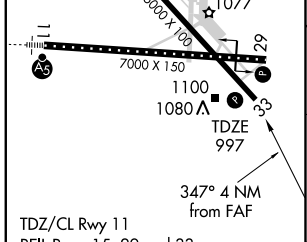
VORTAC GDM 110.6 Chan 43	APP CRS 347°	Rwy ldg 5000 TDZE 997 Apt Elev 1010

VOR/DME RWY 33
WORCESTER RGNL (ORH)

MISSED APPROACH: Climbing left turn to 3000 via heading 240° and GDM R-191 to GRAYM Int/GDM 26.7 DME and hold.

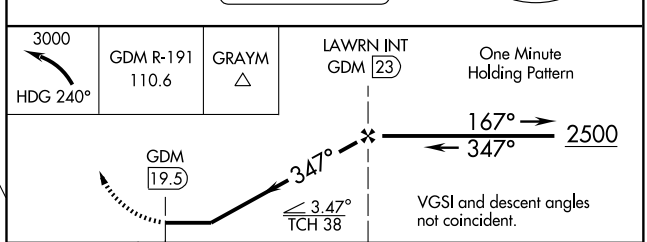
ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	128.65





TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L

Knots	60	90	120	150	180
Min:Sec					



CATEGORY	A	B	C	D
S-33	1520-1 523 (600-1)		1520-1½ 523 (600-1½)	1520-1¾ 523 (600-1¾)
CIRCLING	1540-1 530 (600-1)	1640-1 630 (700-1)	1720-2 710 (800-2)	1960-3 950 (1000-3)